

Semivolatile Organic Compounds, Pesticide/PCBs

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Roy F. Weston, Inc.  
Suite 5700  
700 5th Avenue  
Seattle, Washington 98104-5057  
206-521-7600 • Fax 206-521-7601

## MEMORANDUM

DATE: 27 January 1998

TO: John Meyer, WAM, U.S. EPA, Region X

FROM: Jennifer M. Baier, Environmental Chemist, WESTON, Seattle  
*RNM* Roger McGinnis, Senior Environmental Chemist, WESTON, Seattle

SUBJECT: Validation of Organics (semivolatile compounds, pesticides and PCBs)  
SDG No: T873  
Site: Willamette River

WORK ASSIGNMENT NO: 46-23-0JZZ

DOC. CONTROL NO.: 4000-019-036-AAAY

WORK ORDER NO.: 4000-019-036-5200-00

cc: Bruce Woods, RAP-WAM, U.S. EPA, Region X  
Karen Stash, Project Manager, WESTON, Seattle (memo only)

The quality assurance review of 10 samples, SDG T873, collected from the Willamette River has been completed. The sediment samples were analyzed at low level for semivolatiles, pesticides and PCBs by Analytical Resources, Inc. The samples were numbered:

97384060	97384062	97384063	97384064	97384066
97384067	97384068	97384069	97384070	97384071

### Data Qualifications

The following comments refer to the laboratory performance in meeting the quality control criteria described in the technical specifications of the laboratory subcontract. The review follows the format described in the *National Functional Guidelines for Organic Data Review* (EPA OSWER Directive 9240.1-05, February 1994).

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1. Timeliness

All samples met holding time criteria.

2. GC/MS Instrument Performance Check

All tuning check compound mass abundances and ratios were within required limits.

3. Initial Calibration

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with  $\overline{RRF}$  percent relative standard deviations (percent RSD) less than 30 percent except:

Date	Fraction	Compound	Percent RSD	Associated Samples
2/27/97	BNA	Benzyl alcohol	47.2	97384060, 97384062,
		2,4-Dinitrophenol	52.2	97384063, 97384064, 97384066, 97384067, 97384068, 97384069, 97384070, 97384071

Results and quantitation limits for compounds associated with the above calibrations and samples have been qualified as estimated (J) as a high RSD is indicative of calibration nonlinearity.

4. Continuing Calibrations

All target compound list (TCL) analytes were within required limits for the continuing calibrations with average relative response factors  $\overline{RRF}$  greater than 0.05 except:

Fraction	Date	Time	Compound	$\overline{RRF}$	Associated Samples
BNA	10/22/97	1223	2,4-Dinitrophenol	0.019	None
			4,6-Dinitro-2-methylphenol	0.039	

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Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J). Quantitation limits for all undetected compounds with RRF below 0.05 have been rejected.

All target compound list (TCL) analytes were within required limits for the continuing calibration with RRF percent differences less than 25 percent except:

Fraction	Date	Time	Compound	% Diff	Associated Samples
BNA	10/15/97	1118	Benzyl alcohol	-29.2	97384064
			Hexachlorocyclopentadiene	48.6	97384066
			4-Nitroaniline	-50	
			Di-n-butylphthalate	-32	
BNA	10/16/97	1252	Benzyl alcohol	-34.2	97384067
			N-Nitroso-di-n-propylamine	26.1	97384069
			Hexachlorocyclopentadiene	52.2	97384071
			Pentachlorophenol	27.9	
			Carbazole	38.5	
			Di-n-butylphthalate	-27.8	
			Benzo(g,h,i)perylene	-29.4	
BNA	10/22/97	1223	Benzyl alcohol	-46.6	None
			2,2'-oxybis(1-Chloropropane)	-35.3	
			Hexachlorocyclopentadiene	72.5	
			2,4-Dinitrophenol	80.6	
			4-Nitrophenol	-49.5	
			Diethylphthalate	-25.8	
			4,6-Dinitro-2-methylphenol	72.1	
			N-Nitrosodiphenylamine	26.1	
			Pentachlorophenol	29.9	
			Carbazole	37.3	
			2,4,6-Tribromophenol (surr)	-39.4	

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Fraction	Date	Time	Compound	% Diff	Associated Samples
BNA	10/24/97	1343	Benzyl alcohol	-57.7	97384060
			2,2'-oxybis(1-Chloropropane)	-37.5	97384062
			Hexachlorocyclopentadiene	46.6	97384063
			3-Nitroaniline	26.9	97384068
			2,4-Dinitrophenol	36.7	97384070
			4-Nitroaniline	47.2	
			4,6-Dinitro-2-methylphenol	26.4	
			Pentachlorophenol	29.2	
			Carbazole	47.5	
			Benzyl alcohol	-45.7	97384062 DL
BNA	10/28/97	1041	2,2'-oxybis(1-Chloropropane)	-34	
			4-Chloroaniline	52.3	
			Hexachlorocyclopentadiene	57.5	
			3-Nitroaniline	68.7	
			4-Nitroaniline	33	
			Pentachlorophenol	38.8	
			Carbazole	63.8	
			3,3'-Dichlorobenzidine	40.9	

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J).

5. Detection Limits—Acceptable

Laboratory reporting limits are equal to or less than project required quantitation limits.

6. Blanks

a. Laboratory Method Blanks

Laboratory method blank frequency criteria were met.

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The following compounds were detected in laboratory method blanks.

Fraction	Blank ID	Date	Compound (R. T.)	Concentration ( $\mu\text{g}/\text{kg}$ )
BNA	Method Blank	10/22/97	bis(2-Ethylhexyl)phthalate	160
			1,1,2,2-Tetrachloroethane (6.78)	48
			Unknown alcohol (13.92)	25
			Unknown hydrocarbon (24.67)	23

Reported levels of the above compounds were qualified as undetected with an adjusted quantitation limit (UJ) in samples if concentrations were less than five times concentrations present in the blank (ten times for common laboratory contaminants [e.g., phthalates]).

b. Field Blanks

No field blanks were associated with this SDG.

7. System Monitoring Compounds (Surrogates)

Surrogate compound percent recovery met quality control criteria.

8. Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) or matrix spike duplicate (MSD) percent recovery for the following compounds were outside QC guidelines.

Sample	Fraction	Type	Compound	Percent Recovery	QC Limits
97384060	BNA	MS	1,4-Dichlorobenzene	14.3	28-104
			N-Nitroso-di-n-propylamine	36.2	41-126
			1,2,4-Trichlorobenzene	30.3	38-104

Relative percent differences (RPD) between the MS and MSD percent recoveries exceeded QC guidelines for the following compounds:

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Sample	Fraction	Compound	RPD	QC Limits
97384060	BNA	Phenol	46	35
		2-Chlorophenol	59	50
		1,4-Dichlorobenzene	87	27
		1,2,4-Trichlorobenzene	48	23
		Acenaphthene	30	19

No action was taken based on MS/MSD data since surrogate compound recoveries were acceptable.

9. Field Duplicate Analysis

No field duplicate samples were associated with this sample delivery group.

10. Internal Standards Performance

Internal standard areas were within requirements of -50 percent to +100 percent of associated calibration internal standard areas. Retention time shifts for internal standards met requirements of less than 30 seconds.

11. GC/ECD Instrument Performance

a. Resolution Check Mixture

The resolution check mixture was analyzed at the proper frequency. Resolution (valley depth) between adjacent peaks was greater than 60 percent of the shorter peak.

b. Performance Evaluation Mixture

i. Frequency

Samples were analyzed at the proper frequency.

ii. Resolution

Resolution was greater than 90 percent for all adjacent peaks.

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iii. Retention Time Windows

Retention times of all pesticides were within windows calculated from the initial calibration.

iv. Pesticide Recovery

Recovery for all single component pesticides and surrogate compounds were within QC limits of 75 to 125 percent for both GC columns.

v. DDT/Endrin Breakdown

The percent breakdown for 4,4'-DDT and Endrin was less than 20 percent for each compound and combined breakdown was less than 30 percent on both GC columns.

12. Pesticide Initial Calibration

a. Individual Standard Mixtures

Resolution between adjacent peaks for the initial calibration, mid level concentration was greater than 90 percent.

Retention time windows were calculated correctly.

Appropriate standards concentrations were used and peak heights of 50 to 100 percent of full scale were obtained.

Calibration factor percent relative standard deviation (%RSD) exceeded QC criteria of 20 percent for pesticides and 30 percent for surrogates listed below:

Analyzed	GC Column	Compound	%RSD
10/14/97	DB-5	alpha-BHC	20.6

Results and quantitation limits for analytes listed above have been qualified as estimated (J).

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13. Pesticide Calibration Verification

Instrument blanks and PEM samples were analyzed at the proper frequency.

Resolution between adjacent peaks in individual pesticide mixtures exceeded 90 percent.

Pesticide standard peaks actual and calculated concentrations of individual pesticides was within QC criteria of  $\pm 25$  percent.

The difference between actual and calculated concentrations of individual pesticides exceeded QC criteria of  $\pm 25$  percent for the following pesticides:

Date	GC Column	Compound	% Diff	Associated Samples
10/16/97	DB-608	delta-BHC	30	97384060
				97384064
				97384070

Results and quantitation limits for pesticides listed above were qualified as estimated (J).

14. Pesticide Cleanup Checks

a. Florisil Cartridge Cleanup

Recovery for mixture A pesticides and surrogates were within QC limits of 80 to 120 percent. Recovery of 2,4,5-trichlorophenol was less than 5 percent as required.

b. Gel Permeation Cleanup (GPC)

All pesticides in the matrix spiking solution met recovery limits of 80 to 110 percent. Aroclor-1016 and 1260 patterns matched those of standards.

GPC blank concentrations did not exceed one-half the quantitation limit for any target analytes.

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#### 15. Sample Analysis

The following sample results exhibited greater than 35 percent difference between the primary and confirmation columns for pesticide analysis.

Sample	Compound	ECD4A Concentration ( $\mu\text{g/kg}$ )	ECD4B Concentration ( $\mu\text{g/kg}$ )	%D
97384060	4,4'-DDD	13	5.8	124.1
97384064	4,4'-DDD	15	7.3	105.5
97384070	4,4'-DDT	17	8.6	97.9

The percent differences are not deemed significant at the reported concentrations. The lower concentration was reported for each analyte.

#### 16. Laboratory Contact

The laboratory was contacted regarding sample 97384070, which should not have been analyzed. Since the associated porewater sample from the same location was received by the laboratory past holding time limits, the location was resampled for both sediment and porewater. The results from 97384070 will be disregarded.

#### Data Assessment

Upon consideration of the data qualifications noted above, the data are ACCEPTABLE for use except where flagged with data qualifiers that modify the usefulness of the individual values.

#### Data Qualifiers

- U - The compound was analyzed for, but was not detected.
- UJ - The compound was analyzed for, but was not detected. The associated quantitation limit is an estimate because quality control criteria were not met.
- J - The analyte was positively identified, but the associated numerical value is an estimated quantity because quality control criteria were not met or because concentrations reported are less than the quantitation limit or lowest calibration standard.

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R - Quality control indicates that data are unusable (compound may or may not be present).  
Resampling and reanalysis are necessary for verification.

N - Presumptive evidence of presence of material (tentative identification).

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ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873A  
LIMS ID: 97-17222  
Matrix: Sediment  
Data Release Authorized: *RWJ*  
Reported: 10/29/97

Sample No: 9738 4060  
WR-SD-SD001-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 31.9%  
pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	23
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	260
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	100
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	100
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	90
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20
606-20-2	2,6-Dinitrotoluene	98 U

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ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
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Lab Sample ID: T873A  
LIMS ID: 97-17222  
Matrix: Sediment  
Data Release Authorized: *JMB*  
Reported: 10/29/97

Sample No: 9738 4060  
WR-SD-SD001-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 31.9%  
pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	76
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	630
86-74-8	Carbazole	38 <i>J</i>
120-12-7	Anthracene	130
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,100
129-00-0	Pyrene	1,300
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	570
117-81-7	bis(2-Ethylhexyl)phthalate	46 <i>J</i> <i>us</i>
218-01-9	Chrysene	760
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	950
207-08-9	Benzo(k)fluoranthene	540
50-32-8	Benzo(a)pyrene	1,100
193-39-5	Indeno(1,2,3-cd)pyrene	570
53-70-3	Dibenz(a,h)anthracene	150
191-24-2	Benzo(g,h,i)perylene	710

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.5%	d5-Phenol	62.4%
2-Fluorobiphenyl	64.1%	2-Fluorophenol	62.0%
d14-p-Terphenyl	78.4%	2,4,6-Tribromophenol	85.5%
d4-1,2-Dichlorobenzene	41.9%	d4-2-Chlorophenol	57.9%

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ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873A  
LIMS ID: 97-17222  
Matrix: Sediment

Sample No: 9738 4060  
WR-SD- SD001-0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MB*  
Reported: 11/11/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Cycloalkane_____	7.00	SVOA	400 J N
2. --	Unknown_Cycloalkane_____	7.70	SVOA	320 J N
3. --	Unknown_Cycloalkane_____	8.90	SVOA	290 J N
4. --	Unknown_Aromatic_____	18.30	SVOA	280 J N
5. --	Unknown_____	19.03	SVOA	180 J N
6. --	Unknown_Alcohol_____	19.33	SVOA	340 J N
7. --	Unknown_____	19.68	SVOA	560 J N
8. --	Unknown_____	19.77	SVOA	430 J N
9. --	Unknown_Aromatic_____	20.63	SVOA	950 J N
10. --	Unknown_____	20.95	SVOA	170 J N
11. --	Unknown_____	21.23	SVOA	160 J N
12. --	Unknown_Aromatic_____	21.94	SVOA	250 J N
13. --	Unknown_Acid_Ester_____	22.84	SVOA	460 J N
14. --	Unknown_____	23.38	SVOA	370 J N
15. --	Unknown_Acid_Ester_____	23.66	SVOA	230 J N
16. --	Unknown_Acid_Ester_____	24.05	SVOA	320 J N
17. --	Unknown_C20.H12_PNA_____	24.90	SVOA	480 J N
18. --	Unknown_C22.H12_PNA_____	27.37	SVOA	370 J N
19. --	Unknown_Sterol_type_____	27.75	SVOA	240 J N
20. --	Unknown_Sterol_type_____	28.20	SVOA	260 J N

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ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873B  
LIMS ID: 97-17223  
Matrix: Sediment  
Data Release Authorized: *JMB*  
Reported: 10/29/97

Sample No: 9738 4062  
WR-SD-S D003- 0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 34.4%  
pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	23
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	170
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	92
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	72
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	110
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	27
606-20-2	2,6-Dinitrotoluene	95 U

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ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T873B  
LIMS ID: 97-17223  
Matrix: Sediment  
Data Release Authorized: *JKW*  
Reported: 10/29/97

Sample No: 9738 4062  
WR-SD-SD003-0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 34.4%  
pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	110 J
100-01-6	4-Nitroaniline	95 U J
534-52-1	4,6-Dinitro-2-Methylphenol	190 U J
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	110 J
85-01-8	Phenanthren	1,300
86-74-8	Carbazole	67 J
120-12-7	Anthracene	200
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	2,400 E 2500 D
129-00-0	Pyrene	2,100 E 2300 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	940
117-81-7	bis(2-Ethylhexyl)phthalate	56 J U S
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,100
207-08-9	Benzo(k)fluoranthene	630
50-32-8	Benzo(a)pyrene	1,100
193-39-5	Indeno(1,2,3-cd)pyrene	520
53-70-3	Dibenz(a,h)anthracene	140
191-24-2	Benzo(g,h,i)perylene	580

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.8%	d5-Phenol	60.1%
2-Fluorobiphenyl	63.2%	2-Fluorophenol	62.0%
d14-p-Terphenyl	75.0%	2,4,6-Tribromophenol	83.9%
d4-1,2-Dichlorobenzene	44.7%	d4-2-Chlorophenol	57.1%

FORM-1

00015

JMB 12/9/97  
000186



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873B  
LIMS ID: 97-17223  
Matrix: Sediment

Sample No: 9738 4062  
WR-SD-SD603-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *DMB*  
Reported: 11/11/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_C15.H12_PNA_____	18.13	SVOA	210 J N
2. --	Unknown_C15.H12_PNA_____	18.21	SVOA	280 J N
3. --	Unknown_Aromatic_____	18.31	SVOA	230 J N
4. --	Unknown_____	18.76	SVOA	290 J N
5. --	Unknown_____	19.05	SVOA	930 J N
6. --	Unknown_____	19.68	SVOA	950 J N
7. --	Unknown_C17.H12_PNA_____	20.43	SVOA	200 J N
8. --	Unknown_Aromatic_____	20.65	SVOA	2,200 J N
9. --	Benzothiophene_Isomer_____	21.88	SVOA	250 J N
10. --	Unknown_Aromatic_____	21.95	SVOA	370 J N
11. --	Unknown_Acid_Ester_____	22.84	SVOA	270 J N
12. --	Unknown_C19.H14_PNA_____	23.19	SVOA	250 J N
13. --	Unknown_____	23.37	SVOA	220 J N
14. --	Unknown_C20.H12_PNA_____	24.89	SVOA	480 J N
15. --	Unknown_____	27.30	SVOA	240 J N
16. --	Unknown_C22.H12_PNA_____	27.37	SVOA	500 J N
17. --	Unknown_Aromatic_____	27.47	SVOA	610 J N
18. --	Unknown_____	27.65	SVOA	370 J N
19. --	Unknown_Sterol_type_____	27.76	SVOA	490 J N
20. --	Unknown_Sterol_type_____	28.20	SVOA	260 J N

FORM-1-B

00016

*JMB*  
*12/19/97* - 00016



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T873B

LIMS ID: 97-17223

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 10/29/97

Sample No. 9738 4062

DILUTION

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 34.4%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	95 U
111-44-4	Bis-(2-Chloroethyl) Ether	190 U
95-57-8	2-Chlorophenol	95 U
541-73-1	1,3-Dichlorobenzene	95 U
106-46-7	1,4-Dichlorobenzene	95 U
100-51-6	Benzyl Alcohol	95 U
95-50-1	1,2-Dichlorobenzene	95 U
95-48-7	2-Methylphenol	95 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	95 U
106-44-5	4-Methylphenol	95 U
621-64-7	N-Nitroso-Di-N-Propylamine	190 U
67-72-1	Hexachloroethane	95 U
98-95-3	Nitrobenzene	95 U
78-59-1	Isophorone	95 U
88-75-5	2-Nitrophenol	480 U
105-67-9	2,4-Dimethylphenol	95 U
65-85-0	Benzoic Acid	950 U
111-91-1	bis(2-Chloroethoxy) Methane	95 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	95 U
91-20-3	Naphthalene	170
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	95 U
59-50-7	4-Chloro-3-methylphenol	190 U
91-57-6	2-Methylnaphthalene	95 U
77-47-4	Hexachlorocyclopentadiene	480 U
88-06-2	2,4,6-Trichlorophenol	480 U
95-95-4	2,4,5-Trichlorophenol	480 U
91-58-7	2-Chloronaphthalene	95 U
88-74-4	2-Nitroaniline	480 U
131-11-3	Dimethylphthalate	95 U
208-96-8	Acenaphthylene	95 U
99-09-2	3-Nitroaniline	570 U
83-32-9	Acenaphthene	110
51-28-5	2,4-Dinitrophenol	950 U
100-02-7	4-Nitrophenol	480 U
132-64-9	Dibenzofuran	95 U
606-20-2	2,6-Dinitrotoluene	480 U

FORM-1

00017

JMB  
12/9/97

030239

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T873B  
LIMS ID: 97-17223

Matrix: Sediment

Data Release Authorized: *GRW*  
Reported: 10/29/97Sample No. 9738 4062  
DILUTIONQC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 34.4%  
pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	480 U
84-66-2	Diethylphthalate	95 U
7005-72-3	4-Chlorophenyl-phenylether	95 U
86-73-7	Fluorene	96
100-01-6	4-Nitroaniline	480 U
534-52-1	4,6-Dinitro-2-Methylphenol	950 U
86-30-6	N-Nitrosodiphenylamine	95 U
101-55-3	4-Bromophenyl-phenylether	95 U
118-74-1	Hexachlorobenzene	95 U
87-86-5	Pentachlorophenol	480 U
85-01-8	Phenanthrene	1,200
86-74-8	Carbazole	95 U
120-12-7	Anthracene	190
84-74-2	Di-n-Butylphthalate	95 U
206-44-0	Fluoranthene	2,500
129-00-0	Pyrene	2,300
85-68-7	Butylbenzylphthalate	95 U
91-94-1	3,3'-Dichlorobenzidine	480 U
56-55-3	Benz(a)anthracene	930
117-81-7	bis(2-Ethylhexyl)phthalate	95 U
218-01-9	Chrysene	1,200
117-84-0	Di-n-Octyl phthalate	95 U
205-99-2	Benz(b)fluoranthene	700
207-08-9	Benz(k)fluoranthene	770
50-32-8	Benz(a)pyrene	1,000
193-39-5	Indeno(1,2,3-cd)pyrene	560
53-70-3	Dibenz(a,h)anthracene	140
191-24-2	Benz(g,h,i)perylene	770

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.0%	d5-Phenol	61.7%
2-Fluorobiphenyl	60.8%	2-Fluorophenol	54.7%
d14-p-Terphenyl	71.8%	2,4,6-Tribromophenol	69.7%
d4-1,2-Dichlorobenzene	43.8%	d4-2-Chlorophenol	57.1%

FORM-1

00018

090240  
JMB 12/9/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873B  
LIMS ID: 97-17223  
Matrix: Sediment

Sample No: 9738 4062  
DILUTION  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MMF*  
Reported: 11/11/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_C15.H12_PNA	18.49	SVOA	260 J
2. ---	Unknown_Aromatic	18.72	SVOA	340 J
3. ---	Unknown	19.17	SVOA	230 J
4. ---	Unknown	19.45	SVOA	920 J
5. ---	Unknown_Aromatic	20.08	SVOA	800 J
6. ---	Unknown_Aromatic	21.03	SVOA	2,400 J
7. ---	Unknown_Hydrocarbon	21.27	SVOA	460 J
8. ---	Unknown_C18.H10_PNA	22.36	SVOA	300 J
9. ---	Unknown_Hydrocarbon	22.61	SVOA	990 J
10. ---	Unknown_Acid_Ester	23.24	SVOA	200 J
11. ---	Unknown	23.76	SVOA	240 J
12. ---	Unknown_Hydrocarbon	23.86	SVOA	500 J
13. ---	Unknown_Hydrocarbon	25.02	SVOA	480 J
14. ---	Unknown_C20.H12_PNA	25.25	SVOA	370 J
15. ---	Unknown_Sterol_type	27.68	SVOA	900 J
16. ---	Unknown	27.83	SVOA	340 J
17. ---	Unknown	28.02	SVOA	300 J
18. ---	Unknown_Sterol_type	28.13	SVOA	430 J
19. ---	Unknown_Sterol_type	28.56	SVOA	400 J
20. ---				

FORM-1-B

00019

*030341*

*JMB*  
*12/9/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873C  
LIMS ID: 97-17224  
Matrix: Sediment  
Data Release Authorized: *AVP*  
Reported: 10/29/97

Sample No: 9738 4063  
WR- SD- SD005-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 42.1%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	32
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	180
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	74
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	63
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	150
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	27
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00020

*JMB*  
12/19/97 000286

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 2 of 2  
 Lab Sample ID: T873C  
 LIMS ID: 97-17224  
 Matrix: Sediment  
 Data Release Authorized: *JMB*  
 Reported: 10/29/97



ANALYTICAL  
 RESOURCES  
 INCORPORATED

Sample No: 9738 4063  
 WR-SD-SD005-0000  
 QC Report No: T873-Roy F. Weston  
 Project: 04000-019-036-5100-00  
 Date Sampled: 09/17/97  
 Date Received: 09/19/97

Date extracted: 10/01/97  
 Date analyzed: 10/24/97  
 Instrument: nt1  
 GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 42.1%  
 pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	100
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	610
86-74-8	Carbazole	37 U
120-12-7	Anthracene	110
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,100
129-00-0	Pyrene	1,300
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	480
117-81-7	bis(2-Ethylhexyl)phthalate	120 U
218-01-9	Chrysene	620
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	500
207-08-9	Benzo(k)fluoranthene	520
50-32-8	Benzo(a)pyrene	780
193-39-5	Indeno(1,2,3-cd)pyrene	400
53-70-3	Dibenz(a,h)anthracene	100
191-24-2	Benzo(g,h,i)perylene	460

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.0%	d5-Phenol	63.5%
2-Fluorobiphenyl	66.6%	2-Fluorophenol	67.6%
d14-p-Terphenyl	82.2%	2,4,6-Tribromophenol	85.9%
d4-1,2-Dichlorobenzene	52.1%	d4-2-Chlorophenol	61.3%

FORM-1

00021

*JMB*  
 12/9/97  
 000287



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873C  
LIMS ID: 97-17224  
Matrix: Sediment

Sample No: 9738 4063  
WR-SD- SD005-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MAP*  
Reported: 11/11/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	16.64	SVOA	200 J N
2. 132-65-0	Dibenzothiophene_____	16.84	SVOA	120 J N
3. --	Unknown_____	17.86	SVOA	130 J N
4. --	Unknown_C15.H12_PNA_____	18.14	SVOA	130 J N
5. --	Unknown_____	18.25	SVOA	330 J N
6. --	Unknown_Aromatic_____	18.31	SVOA	250 J N
7. --	Unknown_C16.H14_PNA_____	19.24	SVOA	210 J N
8. --	Unknown_____	19.68	SVOA	580 J N
9. --	Unknown_Aromatic_____	20.63	SVOA	910 J N
10. --	Benzothiophene_Isomer_____	21.90	SVOA	140 J N
11. --	Unknown_____	22.54	SVOA	170 J N
12. --	Unknown_Acid_Ester_____	22.85	SVOA	530 J N
13. --	Unknown_Sterol_type_____	23.38	SVOA	170 J N
14. --	Unknown_C20.H12_PNA_____	24.89	SVOA	250 J N
15. --	Unknown_Sterol_type_____	25.92	SVOA	160 J N
16. --	Unknown_C22.H12_PNA_____	27.38	SVOA	650 J N
17. --	Unknown_____	27.47	SVOA	530 J N
18. --	Unknown_____	27.66	SVOA	230 J N
19. --	Unknown_____	27.77	SVOA	450 J N
20. --	Unknown_Sterol_type_____	28.22	SVOA	320 J N

FORM-1-B

00022

JMB  
12/11/97 000:288



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873D  
LIMS ID: 97-17225  
Matrix: Sediment  
Data Release Authorized: *MB*  
Reported: 10/29/97

Sample No: 9738 4064  
WR- SD - SDoll- 8000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/15/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 47.0%  
pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	24
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	270
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	140
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	31
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	120
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	25
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00023

*JMB*  
12/9/97

000339



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T873D

LIMS ID: 97-17225

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 10/29/97

Sample No: 9738 4064

WR-SD-SD011-0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/15/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.0%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	86
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	480
86-74-8	Carbazole	26
120-12-7	Anthracene	100
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	470
129-00-0	Pyrene	560
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benz(a)anthracene	170
117-81-7	bis(2-Ethylhexyl)phthalate	170 <i>545</i>
218-01-9	Chrysene	240
117-84-0	Di-n-Octyl phthalate	21
205-99-2	Benzo(b)fluoranthene	200
207-08-9	Benzo(k)fluoranthene	230
50-32-8	Benzo(a)pyrene	280
193-39-5	Indeno(1,2,3-cd)pyrene	160
53-70-3	Dibenz(a,h)anthracene	42
191-24-2	Benzo(g,h,i)perylene	170

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.0%	d5-Phenol	56.2%
2-Fluorobiphenyl	67.5%	2-Fluorophenol	57.7%
d14-p-Terphenyl	80.7%	2,4,6-Tribromophenol	78.2%
d4-1,2-Dichlorobenzene	42.5%	d4-2-Chlorophenol	56.0%

FORM-1

00024

*JMB*  
12/19/97

~~000340~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873D  
LIMS ID: 97-17225  
Matrix: Sediment

Sample No: 9738 4064  
WR-SD-SD011-0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MM*  
Reported: 11/11/97

Date Analyzed: 10/15/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	16.44	SVOA	180 J N
2. --	Unknown_Organic_Acid_____	17.10	SVOA	240 J N
3. --	Unknown_Acid_Ester_____	17.83	SVOA	93 J N
4. --	Unknown_Organic_Acid_____	18.08	SVOA	560 J N
5. --	Unknown_____	18.13	SVOA	350 J N
6. --	Unknown_Organic_Acid_____	18.23	SVOA	680 J N
7. --	Unknown_____	18.37	SVOA	180 J N
8. --	Unknown_____	19.05	SVOA	250 J N
9. --	Unknown_Aromatic_____	19.51	SVOA	890 J N
10. --	Unknown_Aromatic_____	20.45	SVOA	360 J N
11. --	Unknown_Aldehyde_____	22.91	SVOA	160 J N
12. --	Unknown_Aldehyde_____	24.14	SVOA	740 J N
13. --	Unknown_Sterol_type_____	26.05	SVOA	240 J N
14. --	Unknown_Aromatic_____	27.44	SVOA	350 J N
15. --	Unknown_____	27.63	SVOA	470 J N
16. --	Unknown_Sterol_type_____	27.76	SVOA	820 J N
17. --	Unknown_____	27.96	SVOA	220 J N
18. --	Unknown_____	28.12	SVOA	220 J N
19. --	Unknown_Sterol_type_____	28.24	SVOA	720 J N
20. --	Unknown_____	28.54	SVOA	180 J N

00025

FORM-1-B

*JMB*  
*12/9/97* *000341*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873E  
LIMS ID: 97-17226  
Matrix: Sediment  
Data Release Authorized: *MWJ*  
Reported: 10/29/97

Sample No: 9738 4066  
WR-SD- SD015-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/15/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.8 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 41.5%  
pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	25
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	120
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	38
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	32
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	50
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00026

JMB  
12/19/97 000393



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T873E

LIMS ID: 97-17226

Matrix: Sediment

Data Release Authorized: *DMW*

Reported: 10/29/97

Sample No: 9738 4066

WR-SD-SD015-0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/15/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.5%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	40
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	260
86-74-8	Carbazole	19 U
120-12-7	Anthracene	52
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	410
129-00-0	Pyrene	450
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	140
117-81-7	bis(2-Ethylhexyl)phthalate	120 U
218-01-9	Chrysene	210
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	180
207-08-9	Benzo(k)fluoranthene	180
50-32-8	Benzo(a)pyrene	240
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	38
191-24-2	Benzo(g,h,i)perylene	160

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.0%	d5-Phenol	59.4%
2-Fluorobiphenyl	72.5%	2-Fluorophenol	66.1%
d14-p-Terphenyl	87.9%	2,4,6-Tribromophenol	94.1%
d4-1,2-Dichlorobenzene	54.6%	d4-2-Chlorophenol	62.0%

00027

FORM-1

JMB  
12/9/97

070394



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873E  
LIMS ID: 97-17226  
Matrix: Sediment

Sample No: 9738 4066  
WR-SD- SD015-0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *AM*  
Reported: 11/11/97

Date Analyzed: 10/15/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-----NO UNKNOWNs FOUND >10% IS PEAK HT-----	-----	-----	-----
2.	-----	-----	-----	-----
3.	-----	-----	-----	-----
4.	-----	-----	-----	-----
5.	-----	-----	-----	-----
6.	-----	-----	-----	-----
7.	-----	-----	-----	-----
8.	-----	-----	-----	-----
9.	-----	-----	-----	-----
10.	-----	-----	-----	-----
11.	-----	-----	-----	-----
12.	-----	-----	-----	-----
13.	-----	-----	-----	-----
14.	-----	-----	-----	-----
15.	-----	-----	-----	-----
16.	-----	-----	-----	-----
17.	-----	-----	-----	-----
18.	-----	-----	-----	-----
19.	-----	-----	-----	-----
20.	-----	-----	-----	-----

00028

FORM-1-B

JMB  
12/9/97  
~~090395~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873F  
LIMS ID: 97-17227  
Matrix: Sediment  
Data Release Authorized: *BBW*  
Reported: 10/29/97

Sample No: 9738 4067  
WR-SD-SD017-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/16/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 44.3%  
pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	28
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	30
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00029

JMB  
12/9/97

000446



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T873F

LIMS ID: 97-17227

Matrix: Sediment

Data Release Authorized: *alw*

Reported: 10/29/97

Sample No: 9738 4067

WR-SD- SD017-0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.3%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	29
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	150
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	36
84-74-2	Di-n-Butylphthalate	20 U <i>J</i>
206-44-0	Fluoranthene	240
129-00-0	Pyrene	240
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	83
117-81-7	bis(2-Ethylhexyl)phthalate	140 <i>J</i> <i>U</i>
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	86
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	110
193-39-5	Indeno(1,2,3-cd)pyrene	63
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	66 <i>J</i>

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.6%	d5-Phenol	61.1%
2-Fluorobiphenyl	64.5%	2-Fluorophenol	58.3%
d14-p-Terphenyl	81.9%	2,4,6-Tribromophenol	86.3%
d4-1,2-Dichlorobenzene	50.2%	d4-2-Chlorophenol	58.9%

FORM-1

00030

*JMB*  
12/9/97 - 030447



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873F  
LIMS ID: 97-17227  
Matrix: Sediment

Sample No: 9738 4067  
WR- SD - SDO17- 0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MM*  
Reported: 11/11/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	17.45	SVOA	190 J N
2.	-- Unknown _____	17.91	SVOA	150 J N
3.	-- Unknown_Organic_Acid _____	18.02	SVOA	130 J N
4.	-- Unknown_Organic_Acid _____	18.18	SVOA	140 J N
5.	-- Unknown _____	18.58	SVOA	940 J N
6.	-- Unknown _____	19.02	SVOA	120 J N
7.	-- Unknown_Alcohol _____	19.37	SVOA	170 J N
8.	-- Unknown_Aromatic _____	19.47	SVOA	140 J N
9.	-- Unknown_Aromatic _____	20.44	SVOA	1,400 J N
10.	-- Unknown_Aromatic _____	23.17	SVOA	180 J N
11.	-- Unknown _____	23.32	SVOA	270 J N
12.	-- Unknown_Alcohol _____	23.91	SVOA	150 J N
13.	-- Unknown_Sterol_type _____	25.99	SVOA	250 J N
14.	-- Unknown_Sterol_type _____	26.29	SVOA	140 J N
15.	-- Unknown_Aromatic _____	27.37	SVOA	370 J N
16.	-- Unknown _____	27.55	SVOA	320 J N
17.	-- Unknown_Sterol_type _____	27.70	SVOA	650 J N
18.	-- Unknown _____	27.88	SVOA	240 J N
19.	-- Unknown_Aromatic _____	28.05	SVOA	130 J N
20.	-- Unknown_Sterol_type _____	28.16	SVOA	270 J N

FORM-1-B

00031

JMB  
12/9/97  
000418



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T873G

LIMS ID: 97-17228

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 10/29/97

Sample No: 9738 4068

WR-SD- SD018- 0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/24/97

Instrument: nti

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.1%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	150
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	420
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	270
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	48
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00032

030493 JMB  
12/19/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T873G  
LIMS ID: 97-17228  
Matrix: Sediment  
Data Release Authorized: *JMB*  
Reported: 10/29/97

Sample No: 9738 4068  
WR-SD- SD018-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 51.1%  
pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorane	140
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	440
86-74-8	Carbazole	180 <i>J</i>
120-12-7	Anthracene	70
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	390
129-00-0	Pyrene	360
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	120
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>JUS</i>
218-01-9	Chrysene	160
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	140
207-08-9	Benzo(k)fluoranthene	100
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	79
53-70-3	Dibenz(a,h)anthracene	24
191-24-2	Benzo(g,h,i)perylene	90

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.8%	d5-Phenol	51.3%
2-Fluorobiphenyl	51.9%	2-Fluorophenol	53.9%
d14-p-Terphenyl	69.7%	2,4,6-Tribromophenol	66.7%
d4-1,2-Dichlorobenzene	36.4%	d4-2-Chlorophenol	49.1%

FORM-1

00033

*JMB*  
*12/19/97*  
~~09/19/97~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873G  
LIMS ID: 97-17228  
Matrix: Sediment

Sample No: 9738 4068  
WR-SD- SD018-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *CRP*  
Reported: 11/11/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.71	SVOA	300 JNB <del>R</del> JN
2. 90-12-0	Naphthalene, 1-methyl-	12.23	SVOA	160 JN
3. --	Unknown_Organic_Acid_____	16.64	SVOA	160 J N
4. --	Unknown_Ketone_____	18.27	SVOA	340 J N
5. --	Unknown_Organic_Acid_____	18.41	SVOA	210 J N
6. --	Unknown_____	19.68	SVOA	230 J N
7. --	Unknown_Aromatic_____	20.61	SVOA	290 J N
8. --	Unknown_Aldehyde_____	23.10	SVOA	190 J N
9. --	Unknown_Aldehyde_____	24.31	SVOA	450 J N
10. --	Unknown_Aldehyde_____	25.44	SVOA	210 J N
11. --	Unknown_____	26.04	SVOA	350 J N
12. --	Unknown_Sterol_type_____	26.22	SVOA	420 J N
13. --	Unknown_Sterol_type_____	26.47	SVOA	190 J N
14. --	Unknown_Sterol_type_____	26.93	SVOA	140 J N
15. --	Unknown_____	27.48	SVOA	750 J N
16. --	Unknown_____	27.66	SVOA	200 J N
17. --	Unknown_____	27.78	SVOA	730 J N
18. --	Unknown_Aromatic_____	28.01	SVOA	170 J N
19. --	Unknown_____	28.11	SVOA	160 J N
20. --	Unknown_Sterol_type_____	28.22	SVOA	320 J N

FORM-1-B

00034

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12/19/97  
000495



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T873H

LIMS ID: 97-17229

Matrix: Sediment

Data Release Authorized: *RJW*

Reported: 10/29/97

Sample No: 9738 4069

WR-SD- SD019-0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.8%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	31
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00035

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12/19/97  
000544



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T873H  
LIMS ID: 97-17229  
Matrix: Sediment  
Data Release Authorized: *BNP*  
Reported: 10/29/97

Sample No: 9738 4069  
WR-SD- SD019-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/16/97

Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 45.8%  
pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	26
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	150
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	43
84-74-2	Di-n-Butylphthalate	19 U <i>J</i>
206-44-0	Fluoranthene	230
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	90
117-81-7	bis(2-Ethylhexyl)phthalate	98 <i>plus</i> <i>J</i>
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	95
50-32-8	Benzo(a)pyrene	130
193-39-5	Indeno(1,2,3-cd)pyrene	75
53-70-3	Dibenz(a,h)anthracene	22
191-24-2	Benzo(g,h,i)perylene	81 <i>J</i>

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.5%	d5-Phenol	46.3%
2-Fluorobiphenyl	53.3%	2-Fluorophenol	45.7%
d14-p-Terphenyl	60.3%	2,4,6-Tribromophenol	69.1%
d4-1,2-Dichlorobenzene	39.4%	d4-2-Chlorophenol	46.5%

FORM-1

00036

*JMB*  
*12/9/97*  
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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873H  
LIMS ID: 97-17229  
Matrix: Sediment

Sample No: 9738 4069  
WR-SD- SD019- 0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MB*  
Reported: 11/11/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.58	SVOA	340 JNB- JN
2. --	Unknown_Aromatic_____	18.11	SVOA	120 J N
3. --	Unknown_____	19.02	SVOA	150 J N
4. --	Unknown_____	19.38	SVOA	100 J N
5. --	Unknown_Aromatic_____	19.48	SVOA	190 J N
6. --	Unknown_Aromatic_____	20.41	SVOA	200 J N
7. --	Unknown_Aldehyde_____	22.88	SVOA	190 J N
8. --	Unknown_Aromatic_____	23.18	SVOA	380 J N
9. --	Unknown_____	23.33	SVOA	440 J N
10. --	Unknown_Aldehyde_____	24.10	SVOA	840 J N
11. --	Unknown_Alcohol_____	24.48	SVOA	270 J N
12. --	Unknown_Aldehyde_____	25.23	SVOA	390 J N
13. --	Unknown_Sterol_type_____	26.00	SVOA	200 J N
14. --	Unknown_Aldehyde_____	26.30	SVOA	180 J N
15. --	Unknown_Aromatic_____	27.38	SVOA	570 J N
16. --	Unknown_Aromatic_____	27.57	SVOA	470 J N
17. --	Unknown_Sterol_type_____	27.70	SVOA	830 J N
18. --	Unknown_Organic_Acid_____	27.88	SVOA	280 J N
19. --	Unknown_____	28.06	SVOA	180 J N
20. --	Unknown_Sterol_type_____	28.16	SVOA	270 J N

FORM-1-B

00037

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## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T873I

LIMS ID: 97-17230

Matrix: Sediment

Data Release Authorized: *GWJ*

Reported: 10/29/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4070

WR-SD-SD020-0000

QC Report No: T873-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/24/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.3%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	31
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	43
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00038

*JMB 12/1/97 - 090592*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T873I  
LIMS ID: 97-17230  
Matrix: Sediment  
Data Release Authorized: *MMR*  
Reported: 10/29/97

Sample No: 9738 4070  
WR-SD- SD020- 0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 50.3%  
pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	35
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	220
86-74-8	Carbazole	19 <i>J</i>
120-12-7	Anthracene	38
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	330
129-00-0	Pyrene	360
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	110
117-81-7	bis(2-Ethylhexyl)phthalate	90 <i>pH 5</i>
218-01-9	Chrysene	160
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	74
53-70-3	Dibenz(a,h)anthracene	22
191-24-2	Benzo(g,h,i)perylene	83

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.0%	d5-Phenol	50.9%
2-Fluorobiphenyl	57.0%	2-Fluorophenol	53.2%
d14-p-Terphenyl	75.4%	2,4,6-Tribromophenol	79.6%
d4-1,2-Dichlorobenzene	37.8%	d4-2-Chlorophenol	48.8%

FORM-1

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*JMB 12/19/97  
010593*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873I  
LIMS ID: 97-17230  
Matrix: Sediment

Sample No: 9738 4070  
WR-SD-SDOZD-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *MJ*  
Reported: 11/11/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	16.63	SVOA	130 J N
2. --	Unknown_____	18.22	SVOA	130 J N
3. --	Unknown_Aromatic_____	18.31	SVOA	130 J N
4. --	Unknown_Organic_Acid_____	18.37	SVOA	140 J N
5. --	Unknown_____	18.77	SVOA	340 J N
6. --	Unknown_Aromatic_____	19.24	SVOA	160 J N
7. --	Unknown_____	19.68	SVOA	470 J N
8. --	Unknown_Aromatic_____	20.62	SVOA	390 J N
9. --	Unknown_Aldehyde_____	23.10	SVOA	230 J N
10. --	Unknown_Aromatic_____	23.38	SVOA	500 J N
11. --	Unknown_____	23.53	SVOA	190 J N
12. --	Unknown_Aldehyde_____	25.43	SVOA	200 J N
13. --	Unknown_Aromatic_____	26.36	SVOA	140 J N
14. --	Unknown_Sterol_type_____	26.92	SVOA	130 J N
15. --	Unknown_Aromatic_____	27.48	SVOA	1,200 J N
16. --	Unknown_____	27.67	SVOA	570 J N
17. --	Unknown_____	27.78	SVOA	890 J N
18. --	Unknown_____	28.01	SVOA	130 J N
19. --	Unknown_____	28.11	SVOA	200 J N
20. --	Unknown_Sterol_type_____	28.21	SVOA	420 J N

FORM-1-B

00040

010594  
JMB 12/9/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T873J  
LIMS ID: 97-17231  
Matrix: Sediment  
Data Release Authorized: *✓*  
Reported: 10/29/97

Sample No: 9738 4071  
WR-SD-SD024-0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/16/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 48.8%  
pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	30
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	26
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00041

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12/9/97 000641



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T873J  
LIMS ID: 97-17231  
Matrix: Sediment  
Data Release Authorized: ✓✓✓  
Reported: 10/29/97

Sample No: 9738 4071  
WR-SD-SD024-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/16/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 48.8%  
pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	20
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U J
85-01-8	Phenanthrene	120
86-74-8	Carbazole	19 U J
120-12-7	Anthracene	28
84-74-2	Di-n-Butylphthalate	19 U J
206-44-0	Fluoranthene	210
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	83
117-81-7	bis(2-Ethylhexyl)phthalate	140 JUS
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	99
207-08-9	Benzo(k)fluoranthene	89
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	66
53-70-3	Dibenz(a,h)anthracene	21
191-24-2	Benzo(g,h,i)perylene	69 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	41.0%	d5-Phenol	40.2%
2-Fluorobiphenyl	49.7%	2-Fluorophenol	36.9%
d14-p-Terphenyl	66.8%	2,4,6-Tribromophenol	71.6%
d4-1,2-Dichlorobenzene	32.8%	d4-2-Chlorophenol	38.5%

FORM-1

00042

JMB  
12/19/97  
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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T873J  
LIMS ID: 97-17231  
Matrix: Sediment

Sample No: 9738 4071  
WR-SD-SD024-0000  
QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/19/97

Data Release Authorized: *on*  
Reported: 11/11/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.58	SVOA	230 JNB R
2. --	Unknown_Cycloalkane_____	17.45	SVOA	160 J N
3. --	Unknown_____	18.58	SVOA	190 J N
4. --	Unknown_Aromatic_____	19.48	SVOA	280 J N
5. --	Unknown_Aromatic_____	20.42	SVOA	450 J N
6. --	Unknown_____	21.73	SVOA	260 J N
7. --	Unknown_Aldehyde_____	22.88	SVOA	400 J N
8. --	Unknown_Aromatic_____	23.18	SVOA	420 J N
9. --	Unknown_____	23.33	SVOA	560 J N
10. --	Unknown_Cycloalkane_____	24.49	SVOA	590 J N
11. --	Unknown_Aldehyde_____	25.22	SVOA	860 J N
12. --	Unknown_Alcohol_____	25.58	SVOA	620 J N
13. --	Unknown_Sterol_type_____	26.00	SVOA	530 J N
14. --	Unknown_Alcohol_____	26.30	SVOA	460 J N
15. --	Unknown_Aromatic_____	27.38	SVOA	920 J N
16. --	Unknown_____	27.58	SVOA	730 J N
17. --	Unknown_Sterol_type_____	27.71	SVOA	1,300 J N
18. --	Unknown_____	27.90	SVOA	470 J N
19. --	Unknown_Aromatic_____	28.06	SVOA	290 J N
20. --	Unknown_Sterol_type_____	28.17	SVOA	510 J N

FORM-1-B

00043

JMB 12/19/97  
000643



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T873A  
LIMS ID: 97-17222  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 10/20/97

Sample No: 9738 4060

WR- SD- SD001- 0000

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/17/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 51.1 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 31.9%  
pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U J
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	2.0 X u I J
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	1.6 J
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	5.8 J
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	2.0 U
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 57.0%  
Tetrachloromethylene 46.8%

FORM-1

00044

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JMB  
12/9/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4064

WR- SD- SD611- 0000

Lab Sample ID: T873D

QC Report No: T873-Roy F. Weston

LIMS ID: 97-17225

Project: 04000-019-036-5100-00

Matrix: Sediment

Data Release Authorized: *N/A*

Date Sampled: 09/17/97

Reported: 10/20/97

Date Received: 09/19/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 47.0%

pH: 7.0

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U <sup>3</sup>
319-85-7	beta-BHC	0.99 U <sup>3</sup>
319-86-8	delta-BHC	2.5 X U I <sup>3</sup>
58-89-9	gamma-BHC (Lindane)	0.99 U <sup>3</sup>
76-44-8	Heptachlor	0.99 U <sup>3</sup>
309-00-2	Aldrin	0.99 U <sup>3</sup>
1024-57-3	Heptachlor Epoxide	0.99 U <sup>3</sup>
959-98-8	Endosulfan I	0.99 U <sup>3</sup>
60-57-1	Dieldrin	2.0 U <sup>3</sup>
72-55-9	4,4'-DDE	2.7 U <sup>3</sup>
72-20-8	Endrin	2.0 U <sup>3</sup>
33213-65-9	Endosulfan II	2.0 U <sup>3</sup>
72-54-8	4,4'-DDD	7.3 U <sup>3</sup>
1031-07-8	Endosulfan Sulfate	2.0 U <sup>3</sup>
50-29-3	4,4'-DDT	15 U <sup>3</sup>
72-43-5	Methoxychlor	9.9 U <sup>3</sup>
53494-70-5	Endrin Ketone	2.0 U <sup>3</sup>
7421-93-4	Endrin Aldehyde	2.0 U <sup>3</sup>
57-74-9	gamma Chlordane	0.99 U <sup>3</sup>
5103-71-9	alpha Chlordane	0.99 U <sup>3</sup>
8001-35-2	Toxaphene	99 U <sup>3</sup>
12674-11-2	Aroclor 1016	20 U <sup>3</sup>
53469-21-9	Aroclor 1242	20 U <sup>3</sup>
12672-29-6	Aroclor 1248	20 U <sup>3</sup>
11097-69-1	Aroclor 1254	20 U <sup>3</sup>
11096-82-5	Aroclor 1260	20 U <sup>3</sup>
11104-28-2	Aroclor 1221	40 U <sup>3</sup>
11141-16-5	Aroclor 1232	20 U <sup>3</sup>

Pesticide Surrogate Recovery

Decachlorobiphenyl 55.0%  
Tetrachloromethylene 38.8%

FORM-1

00045

JMB 090893  
12/9/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4070

WR-SD-SD02D-0000

Lab Sample ID: T873I  
LIMS ID: 97-17230  
Matrix: Sediment  
Data Release Authorized: *N/A*  
Reported: 10/20/97

QC Report No: T873-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/17/97  
Date Received: 09/19/97

Date extracted: 10/01/97  
Date analyzed: 10/17/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 52.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 50.3%  
pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 U <i>S</i>
319-85-7	beta-BHC	0.96 U <i>S</i>
319-86-8	delta-BHC	2.7 X U <i>I S</i>
58-89-9	gamma-BHC (Lindane)	0.96 U <i>S</i>
76-44-8	Heptachlor	0.96 U <i>S</i>
309-00-2	Aldrin	0.96 U <i>S</i>
1024-57-3	Heptachlor Epoxide	0.96 U <i>S</i>
959-98-8	Endosulfan I	0.96 U <i>S</i>
60-57-1	Dieldrin	1.9 U <i>S</i>
72-55-9	4,4'-DDE	2.7 U <i>S</i>
72-20-8	Endrin	1.9 U <i>S</i>
33213-65-9	Endosulfan II	1.9 U <i>S</i>
72-54-8	4,4'-DDD	3.8 U <i>S</i>
1031-07-8	Endosulfan Sulfate	1.9 U <i>S</i>
50-29-3	4,4'-DDT	8.6 U <i>S</i>
72-43-5	Methoxychlor	9.6 U <i>S</i>
53494-70-5	Endrin Ketone	18 X U <i>I P</i>
7421-93-4	Endrin Aldehyde	1.9 U <i>S</i>
57-74-9	gamma Chlordane	0.96 U <i>S</i>
5103-71-9	alpha Chlordane	0.96 U <i>S</i>
8001-35-2	Toxaphene	96 U <i>S</i>
12674-11-2	Aroclor 1016	19 U <i>S</i>
53469-21-9	Aroclor 1242	19 U <i>S</i>
12672-29-6	Aroclor 1248	19 U <i>S</i>
11097-69-1	Aroclor 1254	19 U <i>S</i>
11096-82-5	Aroclor 1260	19 U <i>S</i>
11104-28-2	Aroclor 1221	38 U <i>S</i>
11141-16-5	Aroclor 1232	19 U <i>S</i>

Pesticide Surrogate Recovery

Decachlorobiphenyl 49.5%  
Tetrachloromethylene 34.5%

FORM-1

00046

JMB  
12/9/97  
000902



Roy F. Weston, Inc.  
Suite 5700  
700 5th Avenue  
Seattle, Washington 98104-5057  
206-521-7600 • Fax 206-521-7601

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Environmental Cleanup Office

## MEMORANDUM

DATE: 27 January 1998

TO: John Meyer, WAM, U.S. EPA, Region X

FROM: Jennifer M. Baier, Environmental Chemist, WESTON, Seattle  
*JMB*  
*RHM* Roger McGinnis, Senior Environmental Chemist, WESTON, Seattle

SUBJECT: Validation of Organics (semivolatiles, pesticides, and PCBs)  
SDG No: T870  
Site: Willamette River

WORK ASSIGNMENT NO: 46-23-0JZZ

DOC. CONTROL NO.: 4000-019-036-AAAN

WORK ORDER NO.: 4000-019-036-5200-00

cc: Bruce Woods, RAP-WAM, U.S. EPA, Region X  
Karen Stash, Project Manager, WESTON, Seattle (memo only)

The quality assurance review of 26 samples, SDG T870, collected from the Willamette River has been completed. The sediment samples were analyzed at low level for semivolatiles, pesticides and PCBs by Analytical Resources, Inc. The samples were numbered:

97384072	97384073	97384074	97384076	97384078
97384079	97384080	97384081	97384082	97384083
97384084	97384085	97384086	97384088	97384089
97384090	97384091	97384093	97384094	97384095
97384096	97384097	97384098	97384099	97384100
97384101				

### Data Qualifications

The following comments refer to the laboratory performance in meeting the quality control criteria described in the technical specifications of the laboratory subcontract. The review follows the format described in the *National Functional Guidelines for Organic Data Review* (EPA OSWER Directive 9240.1-05, February 1994).

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QA Case T870 (Organics)  
Site: Willamette River  
Page 2

1. Timeliness

All samples met holding time criteria except the following:

Sample Number	Fraction	Sampling Date	Extraction Date	Holding Time	QC Limit
97384088	Pest/PCB	9/18/97	11/5/97	48 days	14 days
97384091	Pest/PCB	9/18/97	10/21/97	33 days	14 days
97384101	Pest/PCB	9/18/97	11/5/97	48 days	14 days

Samples were stored at -18°C upon receipt by the laboratory and thus, according to PSEP protocols, holding times may be extended to one year. No data were qualified.

2. GC/MS Instrument Performance Check

All tuning check compound mass abundances and ratios were within required limits.

3. Initial Calibration

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with RRF percent relative standard deviations (percent RSD) less than 30 percent except:

Date	Fraction	Compound	Percent RSD	Associated Samples
2/27/97	BNA	Benzyl alcohol	47.2	None
		2,4-Dinitrophenol	52.2	
10/16/97	BNA	2,4-Dinitrophenol	50.1	97384072, 97384073, 97384074, 97384076, 97384078, 97384079, 97384080, 97384081, 97384082, 97384083, 97384084, 97384085, 97384086, 97384088, 97384089, 97384090, 97384091, 97384093, 97384094, 97384095, 97384096, 97384097, 97384098, 97384099, 97384100, 97384101

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QA Case T870 (Organics)

Site: Willamette River

Page 3

Results and quantitation limits for compounds associated with the above calibrations and samples have been qualified as estimated (J) as a high RSD is indicative of calibration nonlinearity.

#### 4. Continuing Calibrations

All target compound list (TCL) analytes were within required limits for the continuing calibrations with average relative response factors  $\overline{RRF}$  greater than 0.05 except:

Date	Fraction	Compound	$\overline{RRF}$	Associated Samples
10/22/97	BNA	2,4-Dinitrophenol	0.019	97384079
		4,6-Dinitro-2-methyphenol	0.039	

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J). Quantitation limits for all undetected compounds with  $\overline{RRF}$  below 0.05 have been rejected.

All target compound list (TCL) analytes were within required limits for the continuing calibration with  $\overline{RRF}$  percent differences less than 25 percent except:

Date	Time	Compound	% Diff	Associated Samples
10/16/97	1252	Benzyl alcohol	-34.2	97384093, 97384095,
		N-Nitroso-di-n-propylamine	26.1	97384096, 97384099,
		Hexachlorocyclopentadiene	52.2	97384100, 97384101
		Pentachlorophenol	27.9	
		Carbazole	38.5	
		Di-n-butylphthalate	-27.8	
		Benzo(g,h,i)perylene	-29.4	

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DCN 4000-019-036-111AN

27 January 1998

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QA Case T870 (Organics)  
Site: Willamette River  
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Date	Time	Compound	% Diff	Associated Samples
10/17/97	1313	Benzyl alcohol	-31.6	97384086, 97384088,
		Hexachlorocyclopentadiene	46.6	97384081,
		4-Nitroaniline	-30.8	97384095DL
		Pentachlorophenol	34.7	
		Di-n-butylphthalate	-31.3	
10/20/97	1451	2,2'-oxybis(1-Chloropropane)	27.1	97384076, 97384078,
		2,4-Dinitrophenol	-32.8	97384082, 97384084
		2,4,6-Tribromophenol (surr)	-36.9	
10/22/97	1223	Benzyl alcohol	-46.6	97384079
		2,2'-oxybis(1-Chloropropane)	-35.3	
		Hexachlorocyclopentadiene	72.5	
		2,4-Dinitrophenol	80.6	
		4-Nitrophenol	-49.5	
		Diethylphthalate	-25.8	
		4,6-Dinitro-2-methylphenol	72.1	
		N-Nitrosodiphenylamine	26.1	
		Pentachlorophenol	29.9	
		Carbazole	37.3	
10/24/97	1343	2,4,6-Tribromophenol (surr)	-39.4	
		Benzyl alcohol	-57.7	97384080, 97384083,
		2,2'-oxybis(1-Chloropropane)	-37.5	97384089, 97384090,
		Hexachlorocyclopentadiene	46.6	97384091, 97384094
		3-Nitroaniline	26.9	
		2,4-Dinitrophenol	36.7	
		4-Nitroaniline	47.2	
		4,6-Dinitro-2-methylphenol	26.4	
		Pentachlorophenol	29.2	
		Carbazole	47.5	

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QA Case T870 (Organics)  
Site: Willamette River  
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Date	Time	Compound	% Diff	Associated Samples
10/28/97	1041	Benzyl alcohol	-45.7	97384080DL,
		2,2'oxybis(1-Chloropropane)	-34	97384097, 97384098
		4-Chloroaniline	52.3	
		Hexachlorocyclopentadiene	57.5	
		3-Nitroaniline	68.7	
		4-Nitroaniline	33	
		Pentachlorophenol	38.8	
		Carbazole	63.8	
		3,3'-Dichlorobenzidine	40.9	
10/29/97	1333	Benzyl alcohol	-37.4	97384081DL
		Hexachlorocyclopentadiene	53.4	
		Pentachlorophenol	35.4	
		Carbazole	29.1	

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J).

5. Detection Limits—Acceptable

Laboratory reporting limits are equal to or less than project required quantitation limits.

6. Blanks

a. Laboratory Method Blanks

The following compounds were detected in laboratory method blanks.

Blank ID	Fraction	Compound (R.T.)	Concentration
Method Blank (10/22/97)	BNA	bis(2-Ethylhexyl)phthalate	16
		1,1,2,2-Tetrachloroethane (6.78)	60
		Unknown Cycloalkane (13.92)	44
		Unknown (23.13)	23

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QA Case T870 (Organics)

Site: Willamette River

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Blank ID	Fraction	Compound (R.T.)	Concentration
		Unknown (23.37)	280
		Unknown Hydrocarbon (23.51)	32
		Unknown (24.57)	160
		Unknown (24.92)	120
		Unknown (26.81)	370
		Unknown (27.57)	340
Method Blank (10/22/97)	BNA	bis(2-Ethylhexyl)phthalate	160
		1,1,2,2-Tetrachloroethane (6.78)	48
		Unknown Alcohol (13.92)	25
		Unknown Hydrocarbon (24.67)	23

Reported levels of the above compounds were qualified as undetected with an adjusted quantitation limit (UJ) in samples if concentrations were less than five times concentrations present in the blank (ten times for common laboratory contaminants [e.g., phthalates]).

b. Field Blanks

No field blanks were associated with this SDG.

7. System Monitoring Compounds (Surrogates)

Surrogate compound percent recovery met quality control criteria for all samples except:

Sample	Fraction	Compound	Percent Recovery	QC Limits
97384090	BNA-Acid	2-Fluorophenol	22.8	25-121
97384076	Pest/PCB	Decachlorobiphenyl	39.8	43-155
97384086	Pest/PCB	Decachlorobiphenyl	36.5	43-155

Results and quantitation limits for samples listed above were qualified as estimated (J/UJ) if any two semivolatile surrogates were outside the recovery limits. For samples with any surrogate recovery less than 10 percent, positive results were qualified as estimated (J)

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QA Case T870 (Organics)  
Site: Willamette River  
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and quantitation limits for undetected compounds were rejected (R). Data qualification was not required.

8. Matrix Spike and Matrix Spike Duplicate

All matrix spike (MS) and matrix spike duplicate (MSD) percent recoveries met QC guidelines. All relative percent differences between the MS and MSD recoveries were within QC guidelines.

9. Field Duplicate Analysis

Samples 97384086 and 97384088 were field duplicates. Results exhibited reasonable agreement.

10. Internal Standards Performance

Internal standard areas were within requirements of -50 percent to +100 percent of associated calibration internal standard areas. Retention time shifts for internal standards met requirements of less than 30 seconds.

11. GC/ECD Instrument Performance

a. Resolution Check Mixture

The resolution check mixture was analyzed at the proper frequency. Resolution (valley depth) between adjacent peaks was greater than 60 percent of the shorter peak.

b. Performance Evaluation Mixture

i. Frequency

Samples were analyzed at the proper frequency.

ii. Resolution

Resolution was greater than 90 percent for all adjacent peaks.

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QA Case T870 (Organics)  
Site: Willamette River  
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iii. Retention Time Windows

Retention times of all pesticides were within windows calculated from the initial calibration.

iv. Pesticide Recovery

Recovery for all single component pesticides and surrogate compounds were within QC limits of 75 to 125 percent for both GC columns.

v. DDT/Endrin Breakdown

The percent breakdown for 4,4'-DDT and Endrin was less than 20 percent for each compound and combined breakdown was less than 30 percent on both GC columns.

12. Pesticide Initial Calibration

a. Individual Standard Mixtures

Resolution between adjacent peaks for the initial calibration, mid level concentration was greater than 90 percent.

Retention time windows were calculated correctly.

Appropriate standards concentrations were used and peak heights of 50 to 100 percent of full scale were obtained.

Calibration factor percent relative standard deviation (%RSD) exceeded QC criteria of 20 percent for pesticides and 30 percent for surrogates listed below:

GC Column	Date	Compound	% RSD
DB-5	10/14/97	alpha-BHC	20.6
DB-5	11/11/97	delta-BHC	21.9
		4,4'-DDT	27.3

Results and quantitation limits for analytes listed above have been qualified as estimated (J).

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QA Case T870 (Organics)

Site: Willamette River

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### 13. Pesticide Calibration Verification

Instrument blanks and PEM samples were analyzed at the proper frequency.

Resolution between adjacent peaks in individual pesticide mixtures exceeded 90 percent.

Pesticide standard peaks actual and calculated concentrations of individual pesticides was within QC criteria of  $\pm 25$  percent.

The difference between actual and calculated concentrations of individual pesticides exceeded QC criteria of  $\pm 25$  percent for the following pesticides:

GC Column	Date	Time	Compound	% Diff
DB-608	10/28/97	18:48	alpha-BHC	60
			beta-BHC	50
			gamma-BHC	50
DB-5	10/29/97	1:58	delta-BHC	55
			Endosulfan sulfate	48
DB-608	10/29/97	1:25	Endrin ketone	43
			alpha-BHC	40
			gamma-BHC	35
			4,4'-DDD	28
DB-608	10/29/97	1:58	beta-BHC	30
			gamma-BHC	90
			Aldrin	35
			Heptachlor epoxide	30
			Endosulfan sulfate	60
DB-5	11/11/97	19:56	Endrin ketone	43
			alpha-Chlordane	30
			4,4'-DDT	28
DB-5	11/12/97	2:32	Endosulfan sulfate	28
			Endrin ketone	28

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DCN 4000-019-036-A.VAN

27 January 1998

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## QA Case T870 (Organics)

Site: Willamette River

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GC Column	Date	Time	Compound	% Diff
DB-608	11/12/97	2:32	delta-BHC	40
			Endosulfan sulfate	35
			Endrin ketone	28

Results and quantitation limits for pesticides listed above were qualified as estimated (J).

## 14. Pesticide Cleanup Checks

## a. Florisil Cartridge Cleanup

Recovery for mixture A pesticides and surrogates were within QC limits of 80 to 120 percent. Recovery of 2,4,5-trichlorophenol was less than 5 percent as required.

## b. Gel Permeation Cleanup (GPC)

All pesticides in the matrix spiking solution met recovery limits of 80 to 110 percent. Aroclor-1016 and 1260 patterns matched those of standards.

GPC blank concentrations did not exceed one-half the quantitation limit for any target analytes.

## 15. Sample Analysis

The following sample results exhibited greater than 35 percent difference between the primary and confirmation columns for pesticide analysis.

Sample	Compound	%D
97384091	4,4'-DDE	52.9
	4,4'-DDD	36.4
	4,4'-DDT	70

The percent differences are not deemed significant at the reported concentrations. The lower concentration was reported for each analyte.

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QA Case T870 (Organics)

Site: Willamette River

Page 11

#### 16. Laboratory Contact

No laboratory contact was required.

#### Data Assessment

Upon consideration of the data qualifications noted above, the data are ACCEPTABLE for use except where flagged with data qualifiers that modify the usefulness of the individual values.

#### Data Qualifiers

- U - The compound was analyzed for, but was not detected.
- UJ - The compound was analyzed for, but was not detected. The associated quantitation limit is an estimate because quality control criteria were not met.
- J - The analyte was positively identified, but the associated numerical value is an estimated quantity because quality control criteria were not met or because concentrations reported are less than the quantitation limit or lowest calibration standard.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification.
- N - Presumptive evidence of presence of material (tentative identification).
- UI - Analyte was undetected. Quantitation limit increased due to interferences.
- E - Value exceeds range of instrument. Value is estimated.
- D - Value from sample dilution.

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*JRM*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870A

LIMS ID: 97-17196

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

Sample No: 9738 4072

WR-SD- SD026-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.5%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	30
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	31
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00058

YMB  
12/15/97

000236



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870A

LIMS ID: 97-17196

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4072

WR-SD - SD026-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.5%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	27
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	130
86-74-8	Carbazole	20 U
120-12-7	Anthracene	29
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	160
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	81
117-81-7	bis(2-Ethylhexyl)phthalate	140 <i>plus</i> 5
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	91
205-99-2	Benzo(b)fluoranthene	92
207-08-9	Benzo(k)fluoranthene	83
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	94
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	59

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.4%	d5-Phenol	57.8%
2-Fluorobiphenyl	58.6%	2-Fluorophenol	52.1%
d14-p-Terphenyl	66.1%	2,4,6-Tribromophenol	90.9%
d4-1,2-Dichlorobenzene	50.0%	d4-2-Chlorophenol	54.6%

FORM-1

00059

000237

JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4072  
WR-SD- SD026-0000

Lab Sample ID: T870A  
LIMS ID: 97-17196  
Matrix: Sediment

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/20/97

Data Release Authorized: MM  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	24.02	SVOA	620 J N
2. --	Unknown_Organic_Acid_____	24.13	SVOA	400 J N
3. 109-29-5	Oxacycloheptadecan-2-one_____	25.63	SVOA	1,600 J N
4. --	Unknown_____	25.73	SVOA	500 J N
5. 57-10-3	Hexadecanoic_acid_____	25.88	SVOA	1,400 J N
6. 112-80-1	Oleic_Acid_____	28.07	SVOA	520 J N
7. --	Unknown_____	33.40	SVOA	650 J N
8. --	Unknown_Phthalate_____	35.10	SVOA	1,300 J N
9. --	Unknown_____	35.15	SVOA	1,400 J N
10. --	Unknown_Phthalate_____	35.20	SVOA	1,700 J N
11. --	Unknown_____	35.28	SVOA	910 J N
12. --	Unknown_Phthalate_____	35.33	SVOA	1,000 J N
13. --	Unknown_Phthalate_____	35.43	SVOA	1,400 J N
14. --	Unknown_Phthalate_____	35.57	SVOA	710 J N
15. --	Unknown_Cycloalkane_____	37.43	SVOA	620 J N
16. 57-88-5	Cholesterol_____	37.82	SVOA	870 J N
17. 80-97-7	Cholestanol_____	37.88	SVOA	830 J N
18. 83-46-5	.beta.-Sitosterol_____	39.43	SVOA	2,600 J N
19. --	Unknown_____	39.52	SVOA	810 J N
20. --	Unknown_____	39.57	SVOA	840 J N

FORM-1-B

00060

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(2/15/97)



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870B

LIMS ID: 97-17197

Matrix: Sediment

Data Release Authorized: MM

Reported: 10/30/97

Sample No: 9738 4073

WR-SD-SD028-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.6%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	23
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	50
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	28
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00061

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12/15/97  
000291



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870B

LIMS ID: 97-17197

Matrix: Sediment

Data Release Authorized: Ww/

Reported: 10/30/97

Sample No: 9738 4073

WR-SD- SD 028-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.6%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	51
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	220
86-74-8	Carbazole	20 U
120-12-7	Anthracene	35
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	210
129-00-0	Pyrene	210
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benz(a)anthracene	74
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>etus</i>
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benz(b)fluoranthene	80
207-08-9	Benz(k)fluoranthene	58
50-32-8	Benz(a)pyrene	78
193-39-5	Indeno(1,2,3-cd)pyrene	61
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benz(g,h,i)perylene	36

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.0%	d5-Phenol	46.2%
2-Fluorobiphenyl	55.0%	2-Fluorophenol	39.9%
d14-p-Terphenyl	64.2%	2,4,6-Tribromophenol	76.4%
d4-1,2-Dichlorobenzene	43.0%	d4-2-Chlorophenol	45.6%

FORM-1

00062

000200

JMB  
2/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870B  
LIMS ID: 97-17197  
Matrix: Sediment

Sample No: 9738 4073  
WR-SD- SD028- 0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_____	9.77	SVOA	320 JN
2. 97-78-9	Glycine, N-methyl-N-(1-ox	23.08	SVOA	140 JN
3. 1002-84-2	Pentadecanoic acid_____	24.00	SVOA	380 JN
4. --	Unknown_____	24.12	SVOA	250 JN
5. 112-39-0	Hexadecanoic acid, methyl	25.27	SVOA	140 JN
6. 2091-29-4	9-Hexadecenoic acid_____	25.60	SVOA	890 JN
7. --	Unknown_____	25.68	SVOA	280 JN
8. 57-10-3	Hexadecanoic acid_____	25.85	SVOA	860 JN
9. --	Unknown_____	28.03	SVOA	520 JN
10. 57-11-4	Octadecanoic acid_____	28.22	SVOA	280 JN
11. --	Unknown_____	29.05	SVOA	360 JN
12. 112-85-6	Docosanoic acid_____	32.55	SVOA	340 JN
13. --	Unknown_____	33.37	SVOA	370 JN
14. --	Unknown_Aldehyde_____	35.10	SVOA	820 JN
15. --	Unknown_____	36.90	SVOA	400 JN
16. --	Unknown_____	37.43	SVOA	300 JN
17. 57-88-5	Cholesterol_____	37.80	SVOA	570 JN
18. 83-46-5	.beta.-Sitosterol_____	39.38	SVOA	1,200 JN
19. --	Unknown_____	39.53	SVOA	660 JN
20. --	Unknown_____	39.83	SVOA	360 JN

FORM-1-B

00063

00063  
JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870C

LIMS ID: 97-17198

Matrix: Sediment

Data Release Authorized: Ww/

Reported: 10/30/97

Sample No: 9738 4074

WR-SD- SD030-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.6%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	21
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	57
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	46
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	170
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	110
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00064

JMB 2/15/97  
0006345



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870C

LIMS ID: 97-17198

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

Sample No: 9738 4074

WR-SD-SD030-0006

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/17/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.6%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	170
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	1,100
86-74-8	Carbazole	37
120-12-7	Anthracene	130
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,400
129-00-0	Pyrene	1,300
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	280
117-81-7	bis(2-Ethylhexyl)phthalate	100 <del>μg</del>
218-01-9	Chrysene	400
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	270
207-08-9	Benzo(k)fluoranthene	240
50-32-8	Benzo(a)pyrene	180
193-39-5	Indeno(1,2,3-cd)pyrene	94
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	62

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.6%	d5-Phenol	50.5%
2-Fluorobiphenyl	54.5%	2-Fluorophenol	43.4%
d14-p-Terphenyl	65.9%	2,4,6-Tribromophenol	73.7%
d4-1,2-Dichlorobenzene	45.8%	d4-2-Chlorophenol	48.5%

FORM-1

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12/15/97

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00065



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870C  
LIMS ID: 97-17198  
Matrix: Sediment

Sample No: 9738 4074  
WR-SD- SD030 -0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/17/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown	9.78	SVOA	300 JN
2. 544-63-8	Tetradecanoic acid	23.12	SVOA	160 JN
3. 1002-84-2	Pentadecanoic acid	24.02	SVOA	210 JN
4. --	Unknown_Organic_Acid	24.13	SVOA	140 JN
5. 203-64-5	4H-Cyclopenta[def]phenant	25.42	SVOA	120 JN
6. --	Unknown	25.63	SVOA	710 JN
7. --	Unknown	25.73	SVOA	280 JN
8. 57-10-3	Hexadecanoic acid	25.88	SVOA	630 JN
9. --	Unknown	26.22	SVOA	110 JN
10. --	Unknown	26.37	SVOA	190 JN
11. --	Unknown	26.68	SVOA	140 JN
12. --	Unknown	27.67	SVOA	120 JN
13. 57-11-4	Octadecanoic acid	28.25	SVOA	120 JN
14. --	Unknown	29.08	SVOA	310 JN
15. 112-85-6	Docosanoic acid	32.60	SVOA	380 JN
16. --	Unknown	33.42	SVOA	450 JN
17. --	Unknown	35.15	SVOA	810 JN
18. --	Unknown	36.93	SVOA	460 JN
19. --	Unknown	39.42	SVOA	380 JN
20. --	Unknown	39.57	SVOA	460 JN

FORM-1-B

00066

*JMB  
12/5/97*  
~~000347~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870D

LIMS ID: 97-17199

Matrix: Sediment

Data Release Authorized: MMW

Reported: 10/30/97

Sample No: 9738 4076

WR-SD-SD035-0006

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.6%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>3</i>
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	20
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	29 <i>MN</i>
51-28-5	2,4-Dinitrophenol	190 U <i>3</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00067

JMB  
12/15/97  
006102



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870D

LIMS ID: 97-17199

Matrix: Sediment

Data Release Authorized: MMW

Reported: 10/30/97

Sample No: 9738 4076

WR-SD- SD035-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.6%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	26
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	130
86-74-8	Carbazole	19 U
120-12-7	Anthracene	25
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	200
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3 3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	74
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>BUJ</i>
218-01-9	Chrysene	92
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	83
207-08-9	Benzo(k)fluoranthene	80
50-32-8	Benzo(a)pyrene	110
193-39-5	Indeno(1,2,3-cd)pyrene	76
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	77

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	45.3%	d5-Phenol	52.5%
2-Fluorobiphenyl	51.5%	2-Fluorophenol	41.7%
d14-p-Terphenyl	72.1%	2,4,6-Tribromophenol	62.5%
d4-1,2-Dichlorobenzene	37.8%	d4-2-Chlorophenol	47.9%

FORM-1

00068

*JMB*  
*12/15/97*

~~00068~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870D  
LIMS ID: 97-17199  
Matrix: Sediment

Sample No: 9738 4076  
WR-SD- SD035-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MMW  
Reported: 10/30/97

Date Analyzed: 10/20/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown _____	10.03	SVOA	720 JN
2. --	Unknown_Siloxane _____	16.40	SVOA	300 JN
3. --	Unknown _____	24.25	SVOA	380 JN
4. --	Unknown_Organic_Acid _____	24.37	SVOA	290 JN
5. 2091-29-4	9-Hexadecenoic_acid _____	25.87	SVOA	850 JN
6. --	Unknown_Organic_Acid _____	25.95	SVOA	300 JN
7. 57-10-3	Hexadecanoic_acid _____	26.12	SVOA	1,100 JN
8. --	Unknown _____	26.58	SVOA	210 JN
9. --	Unknown _____	28.30	SVOA	410 JN
10. 57-11-4	Octadecanoic_acid _____	28.48	SVOA	170 JN
11. --	Unknown_Alkyl_PNA _____	29.33	SVOA	260 JN
12. 112-85-6	Docosanoic_acid _____	32.80	SVOA	230 JN
13. --	Unknown _____	33.67	SVOA	230 JN
14. --	Unknown _____	35.32	SVOA	220 JN
15. --	Unknown _____	35.37	SVOA	290 JN
16. --	Unknown_Aldehyde _____	37.13	SVOA	170 JN
17. --	Unknown _____	39.68	SVOA	360 JN
18. --	Unknown _____	39.85	SVOA	300 JN
19. --	Unknown _____	40.15	SVOA	200 JN
20. --	Unknown _____	40.28	SVOA	550 JN

FORM-1-B

00069

JMB  
12/15/97  
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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T870E  
LIMS ID: 97-17200  
Matrix: Sediment  
Data Release Authorized: MM  
Reported: 10/30/97

Sample No: 9738 4078

WR-SD- SD023- 6000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/20/97  
Instrument: finn8  
GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 55.4%  
pH: 6.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	97 U
111-44-4	Bis-(2-Chloroethyl) Ether	190 U
95-57-8	2-Chlorophenol	97 U
541-73-1	1,3-Dichlorobenzene	97 U
106-46-7	1,4-Dichlorobenzene	97 U
100-51-6	Benzyl Alcohol	97 U
95-50-1	1,2-Dichlorobenzene	97 U
95-48-7	2-Methylphenol	97 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	97 U
106-44-5	4-Methylphenol	97 U
621-64-7	N-Nitroso-Di-N-Propylamine	190 U
67-72-1	Hexachloroethane	97 U
98-95-3	Nitrobenzene	97 U
78-59-1	Isophorone	97 U
88-75-5	2-Nitrophenol	490 U
105-67-9	2,4-Dimethylphenol	97 U
65-85-0	Benzoic Acid	970 U
111-91-1	bis(2-Chloroethoxy) Methane	97 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	97 U
91-20-3	Naphthalene	100
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	97 U
59-50-7	4-Chloro-3-methylphenol	190 U
91-57-6	2-Methylnaphthalene	97 U
77-47-4	Hexachlorocyclopentadiene	490 U
88-06-2	2,4,6-Trichlorophenol	490 U
95-95-4	2,4,5-Trichlorophenol	490 U
91-58-7	2-Chloronaphthalene	97 U
88-74-4	2-Nitroaniline	490 U
131-11-3	Dimethylphthalate	57 U
208-96-8	Acenaphthylene	97 U
99-09-2	3-Nitroaniline	580 U
83-32-9	Acenaphthene	420
51-28-5	2,4-Dinitrophenol	970 U
100-02-7	4-Nitrophenol	490 U
132-64-9	Dibenzofuran	110
606-20-2	2,6-Dinitrotoluene	490 U

FORM-1

00070

JMB  
12/15/97  
000156



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870E

LIMS ID: 97-17200

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4078

WR-SD-SD023-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 55.4%

pH: 6.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	490 U
84-66-2	Diethylphthalate	97 U
7005-72-3	4-Chlorophenyl-phenylether	97 U
86-73-7	Fluorene	230
100-01-6	4-Nitroaniline	490 U
534-52-1	4,6-Dinitro-2-Methylphenol	970 U
86-30-6	N-Nitrosodiphenylamine	97 U
101-55-3	4-Bromophenyl-phenylether	97 U
118-74-1	Hexachlorobenzene	97 U
87-86-5	Pentachlorophenol	490 U
85-01-8	Phenanthrene	2,200
86-74-8	Carbazole	420
120-12-7	Anthracene	430
84-74-2	Di-n-Butylphthalate	97 U
206-44-0	Fluoranthene	4,200
129-00-0	Pyrene	4,600
85-68-7	Butylbenzylphthalate	97 U
91-94-1	3,3'-Dichlorobenzidine	490 U
56-55-3	Benzo(a)anthracene	3,200
117-81-7	bis(2-Ethylhexyl)phthalate	470 <i>XWS</i>
218-01-9	Chrysene	3,200
117-84-0	Di-n-Octyl phthalate	97 U
205-99-2	Benzo(b)fluoranthene	5,600
207-08-9	Benzo(k)fluoranthene	3,600
50-32-8	Benzo(a)pyrene	4,900
193-39-5	Indeno(1,2,3-cd)pyrene	3,300
53-70-3	Dibenz(a,h)anthracene	830
191-24-2	Benzo(g,h,i)perylene	2,500

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.2%	d5-Phenol	48.1%
2-Fluorobiphenyl	54.8%	2-Fluorophenol	38.9%
d14-p-Terphenyl	69.0%	2,4,6-Tribromophenol	68.4%
d4-1,2-Dichlorobenzene	40.8%	d4-2-Chlorophenol	46.9%

FORM-1

00071

000457

*JMB*  
*12/15/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870E  
LIMS ID: 97-17200  
Matrix: Sediment

Sample No: 9738 4078  
WR-SD-SD023-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MW  
Reported: 10/30/97

Date Analyzed: 10/20/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown _____	24.28	SVOA	330 J N
2. --	Unknown_PNA _____	25.67	SVOA	320 J N
3. --	Unknown _____	25.77	SVOA	1,600 J N
4. --	Unknown _____	25.87	SVOA	500 J N
5. 57-10-3	Hexadecanoic_acid	26.00	SVOA	860 J N
6. --	Unknown_PNA+_C.E. _____	29.32	SVOA	1,300 J N
7. --	Unknown_PNA _____	29.52	SVOA	670 J N
8. --	Benzo[b]naphtho[1,2-d]Iso	31.23	SVOA	850 J N
9. 203-12-3	Benzo[ghi]fluoranthene	31.37	SVOA	1,200 J N
10. --	Unknown_PNA _____	32.35	SVOA	1,200 J N
11. --	Unknown_Alkyl_PNA	33.30	SVOA	1,200 J N
12. --	Unknown_Alkyl_PNA+_C.E.	33.42	SVOA	810 J N
13. --	Unknown_Alkyl_PNA+_C.E.	33.82	SVOA	860 J N
14. --	Unknown_PNA _____	35.48	SVOA	1,300 J N
15. --	Unknown_PNA _____	35.95	SVOA	3,400 J N
16. --	Unknown_PNA _____	36.30	SVOA	1,400 J N
17. --	Unknown _____	38.25	SVOA	1,000 J N
18. --	Unknown_PNA _____	39.05	SVOA	950 J N
19. --	Unknown _____	39.68	SVOA	870 J N
20. --	Unknown _____	40.25	SVOA	1,300 J N

FORM-1-B

00072

JMB  
12/15/97  
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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T870F  
LIMS ID: 97-17201  
Matrix: Sediment  
Data Release Authorized: MW  
Reported: 10/30/97

Sample No: 9738 4079  
WR-SD-SDO22-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/22/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 50.5%  
pH: 6.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	35
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	110
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	30
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00073

000515

gMB  
12/15/97



## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870F

LIMS ID: 97-17201

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

Sample No: 9738 4079

WR-SD-SD022-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/22/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.5%

pH: 6.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	56
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 <del>U</del> R
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	580
86-74-8	Carbazole	200 U
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,200
129-00-0	Pyrene	1,200
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	950
117-81-7	bis(2-Ethylhexyl)phthalate	160 <del>U</del> S
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,200
207-08-9	Benzo(k)fluoranthene	1,000
50-32-8	Benzo(a)pyrene	1,300
193-39-5	Indeno(1,2,3-cd)pyrene	730
53-70-3	Dibenz(a,h)anthracene	300
191-24-2	Benzo(g,h,i)perylene	760

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	35.9%	d5-Phenol	42.5%
2-Fluorobiphenyl	47.8%	2-Fluorophenol	36.6%
d14-p-Terphenyl	55.7%	2,4,6-Tribromophenol	58.9%
d4-1,2-Dichlorobenzene	28.9%	d4-2-Chlorophenol	38.3%

FORM-1

00074

JMB  
12/15/97

MASL



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870F  
LIMS ID: 97-17201  
Matrix: Sediment

Sample No: 9738 4079  
WR-SD- SDc22-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: WWR  
Reported: 10/30/97

Date Analyzed: 10/22/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Cycloalkane_____	6.97	SVOA	330 J N
2. 80-56-8	.alpha.-Pinene_____	7.08	SVOA	660 J N
3. --	Unknown_Cycloalkane_____	7.73	SVOA	580 J N
4. --	Unknown_Cycloalkane_____	10.61	SVOA	390 J N
5. --	Unknown_Organic_Acid_____	18.33	SVOA	270 J N
6. 203-64-5	4H-Cyclopenta [def]phenant	18.38	SVOA	300 J N
7. --	Unknown_Aromatic_____	19.76	SVOA	170 J N
8. --	Unknown_Aromatic_____	19.86	SVOA	230 J N
9. --	Unknown_____	20.36	SVOA	140 J N
10. --	Unknown_Aromatic_____	20.70	SVOA	370 J N
11. --	Unknown_Aldehyde_____	24.40	SVOA	170 J N
12. --	Unknown_C20.H12_PNA_____	24.98	SVOA	270 J N
13. --	Unknown_____	25.52	SVOA	140 J N
14. --	Unknown_Aromatic_____	25.64	SVOA	140 J N
15. --	Unknown_Aromatic_____	25.87	SVOA	130 J N
16. --	Unknown_Sterol_type_____	26.27	SVOA	160 J N
17. --	Unknown_Sterol_type_____	27.42	SVOA	210 J N
18. --	Unknown_C22.H12_PNA_____	27.49	SVOA	180 J N
19. --	Unknown_Sterol_type_____	27.89	SVOA	220 J N
20. --	Unknown_Sterol_type_____	28.33	SVOA	150 J N

FORM-1-B

00075

JMB  
12/15/97  
000517

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 1 of 2  
 Lab Sample ID: T870G  
 LIMS ID: 97-17202  
 Matrix: Sediment  
 Data Release Authorized: MMW  
 Reported: 10/30/97



Sample No: 9738 4080  
 WR-SD- SD033-0000  
 QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
 Date Received: 09/20/97

Date extracted: 10/01/97  
 Date analyzed: 10/24/97  
 Instrument: ntl  
 GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 50.3%  
 pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U J
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U J
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	160
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	99
77-47-4	Hexachlorocyclopentadiene	96 U J
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	35
99-09-2	3-Nitroaniline	110 U J
83-32-9	Acenaphthene	970
51-28-5	2,4-Dinitrophenol	190 U J
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	220
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00076

ANALYTICAL  
 RESOURCES  
 INCORPORATED

JMB  
 10/15/97  
 000565



ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870G  
LIMS ID: 97-17202  
Matrix: Sediment  
Data Release Authorized: MM  
Reported: 10/30/97

Sample No: 9738 4080  
WR-SD-SD033-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 50.3%  
pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	530
100-01-6	4-Nitroaniline	96 UJ
534-52-1	4,6-Dinitro-2-Methylphenol	190 UJ
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 UJ
85-01-8	Phenanthrene	4,100 E 4800 D
86-74-8	Carbazole	2,600 E 2800 DJ
120-12-7	Anthracene	1,100
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	7,600 E 2000 D
129-00-0	Pyrene	12,000 ED
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	9,600 E 8200 D
117-81-7	bis(2-Ethylhexyl)phthalate	330 X
218-01-9	Chrysene	8,300 E 9500 D
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	9,700 E 9800 D
207-08-9	Benzo(k)fluoranthene	4,100 E 9200 D
50-32-8	Benzo(a)pyrene	8,900 E 12000 D
193-39-5	Indeno(1,2,3-cd)pyrene	5,600 E 8000 D
53-70-3	Dibenz(a,h)anthracene	3,300 E 3600 D
191-24-2	Benzo(g,h,i)perylene	5,600 E 8700 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	41.8%	d5-Phenol	38.6%
2-Fluorobiphenyl	49.1%	2-Fluorophenol	40.7%
d14-p-Terphenyl	119%	2,4,6-Tribromophenol	74.3%
d4-1,2-Dichlorobenzene	31.2%	d4-2-Chlorophenol	38.1%

MB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870G  
LIMS ID: 97-17202  
Matrix: Sediment

Sample No: 9738 4080  
WR-SD- SD033-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MV*  
Reported: 10/30/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_C15.H12_PNA	18.10	SVOA	420 J N
2. --	Unknown_C15.H12_PNA	18.17	SVOA	560 J N
3. --	Unknown_PNA	18.26	SVOA	660 J N
4. --	Unknown_Aromatic	18.35	SVOA	1,900 J N
5. --	Unknown_Organic_Acid	18.45	SVOA	590 J N
6. --	Unknown_C15H9N_Aromatic	19.73	SVOA	550 J N
7. --	Unknown_C17.H12_PNA	20.48	SVOA	550 J N
8. --	Unknown_C17.H12_PNA	20.73	SVOA	2,100 J N
9. --	Unknown_C17.H12_PNA	20.85	SVOA	1,700 J N
10. --	Unknown_Aromatic	21.55	SVOA	630 J N
11. --	Benzothiophene_Isomer	21.94	SVOA	940 J N
12. --	Unknown_C16H11N_Aromatic	22.86	SVOA	810 J N
13. --	Unknown_C16H11N_Aromatic	22.96	SVOA	590 J N
14. --	Unknown_C19.H14_PNA	23.25	SVOA	700 J N
15. --	Unknown_C20.H12_PNA	24.99	SVOA	1,600 J N
16. --	Unknown_C20.H12_PNA	25.21	SVOA	1,200 J N
17. --	Unknown	25.44	SVOA	690 J N
18. --	Unknown_C22.H14_PNA	26.99	SVOA	450 J N
19. --	Unknown_C22.H14_PNA	27.07	SVOA	470 J N
20. --	Unknown_C22.H12_PNA	27.51	SVOA	1,300 J N

FORM-1-B

00078

000567

*JMB  
12/5/97*

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870G

LIMS ID: 97-17202

Matrix: Sediment

Data Release Authorized: MV

Reported: 10/30/97



Sample No. 9738 4080

DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:20  
Percent Moisture: 50.3%  
pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	380 U
111-44-4	Bis-(2-Chloroethyl) Ether	760 U
95-57-8	2-Chlorophenol	380 U
541-73-1	1,3-Dichlorobenzene	380 U
106-46-7	1,4-Dichlorobenzene	380 U
100-51-6	Benzyl Alcohol	380 U
95-50-1	1,2-Dichlorobenzene	380 U
95-48-7	2-Methylphenol	380 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	380 U
106-44-5	4-Methylphenol	380 U
621-64-7	N-Nitroso-Di-N-Propylamine	760 U
67-72-1	Hexachloroethane	380 U
98-95-3	Nitrobenzene	380 U
78-59-1	Isophorone	380 U
88-75-5	2-Nitrophenol	1,900 U
105-67-9	2,4-Dimethylphenol	380 U
65-85-0	Benzoic Acid	3,800 U
111-91-1	bis(2-Chloroethoxy) Methane	380 U
120-83-2	2,4-Dichlorophenol	1,100 U
120-82-1	1,2,4-Trichlorobenzene	380 U
91-20-3	Naphthalene	380 U
106-47-8	4-Chloroaniline	1,100 U
87-68-3	Hexachlorobutadiene	380 U
59-50-7	4-Chloro-3-methylphenol	760 U
91-57-6	2-Methylnaphthalene	380 U
77-47-4	Hexachlorocyclopentadiene	1,900 U
88-06-2	2,4,6-Trichlorophenol	1,900 U
95-95-4	2,4,5-Trichlorophenol	1,900 U
91-58-7	2-Chloronaphthalene	380 U
88-74-4	2-Nitroaniline	1,900 U
131-11-3	Dimethylphthalate	380 U
208-96-8	Acenaphthylene	380 U
99-09-2	3-Nitroaniline	2,300 U
83-32-9	Acenaphthene	800
51-28-5	2,4-Dinitrophenol	3,800 U
100-02-7	4-Nitrophenol	1,900 U
132-64-9	Dibenzofuran	380 U
606-20-2	2,6-Dinitrotoluene	1,900 U

FORM-1

00079

000618

QMB  
12/15/97

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870G

LIMS ID: 97-17202

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97



Sample No. 9738 4080

DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:20

Percent Moisture: 50.3%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	1,900 U
84-66-2	Diethylphthalate	380 U
7005-72-3	4-Chlorophenyl-phenylether	380 U
86-73-7	Fluorene	420
100-01-6	4-Nitroaniline	1,900 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,800 U
86-30-6	N-Nitrosodiphenylamine	380 U
101-55-3	4-Bromophenyl-phenylether	380 U
118-74-1	Hexachlorobenzene	380 U
87-86-5	Pentachlorophenol	1,900 U
85-01-8	Phenanthrene	4,800
86-74-8	Carbazole	2,800
120-12-7	Anthracene	990
84-74-2	Di-n-Butylphthalate	380 U
206-44-0	Fluoranthene	12,000
129-00-0	Pyrene	12,000
85-68-7	Butylbenzylphthalate	380 U
91-94-1	3,3'-Dichlorobenzidine	1,900 U
56-55-3	Benzo(a)anthracene	8,200
117-81-7	bis(2-Ethylhexyl)phthalate	380 U
218-01-9	Chrysene	9,500
117-84-0	Di-n-Octyl phthalate	380 U
205-99-2	Benzo(b)fluoranthene	9,800
207-08-9	Benzo(k)fluoranthene	9,200
50-32-8	Benzo(a)pyrene	12,000
193-39-5	Indeno(1,2,3-cd)pyrene	8,000
53-70-3	Dibenz(a,h)anthracene	3,600
191-24-2	Benz(g,h,i)perylene	8,700

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	35.2%	d5-Phenol	36.8%
2-Fluorobiphenyl	46.4%	2-Fluorophenol	34.7%
d14-p-Terphenyl	60.8%	2,4,6-Tribromophenol	49.6%
d4-1,2-Dichlorobenzene	33.6%	d4-2-Chlorophenol	36.8%

FORM-1

00080

*JMB*  
*12/15/97*

~~000619~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870G  
LIMS ID: 97-17202  
Matrix: Sediment

Sample No: 9738 4080  
DILUTION  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Hydrocarbon_____	11.13	SVOA	2,900 J
2. ---	Unknown_____	18.72	SVOA	940 J
3. ---	Unknown_C17.H12_PNA_____	21.04	SVOA	2,000 J
4. ---	Unknown_C17.H12_PNA_____	21.17	SVOA	1,300 J
5. ---	Benzothiophene_Isomer_____	22.26	SVOA	780 J
6. ---	Unknown_PNA_____	22.34	SVOA	1,200 J
7. ---	Unknown_Hydrocarbon_____	22.61	SVOA	1,100 J
8. ---	Unknown_PNA_____	22.99	SVOA	1,600 J
9. ---	Unknown_C19.H14_PNA_____	23.57	SVOA	900 J
10. ---	Unknown_____	23.76	SVOA	850 J
11. ---	Unknown_Hydrocarbon_____	23.86	SVOA	2,500 J
12. ---	Unknown_C20.H12_PNA_____	24.97	SVOA	1,300 J
13. ---	Unknown_Hydrocarbon_____	25.02	SVOA	800 J
14. ---	Unknown_C20.H12_PNA_____	25.27	SVOA	4,200 J
15. ---	Unknown_PNA_____	25.95	SVOA	790 J
16. ---	Unknown_C22.H14_PNA_____	26.95	SVOA	1,000 J
17. ---	Unknown_C22.H14_PNA_____	27.34	SVOA	1,300 J
18. ---	Unknown_C22.H12_PNA_____	27.74	SVOA	1,900 J
19. ---	Unknown_____	28.13	SVOA	870 J
20. ---	Unknown_Aromatic_____	28.57	SVOA	830 J

FORM-1-B

00081

*JMB*  
*12/15/97*  
000620



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870H

LIMS ID: 97-17203

Matrix: Sediment

Data Release Authorized: WW

Reported: 10/30/97

Sample No: 9738 4081

WR-SD-SD032-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 55.7%

pH: 6.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	98 U
111-44-4	Bis-(2-Chloroethyl) Ether	200 U
95-57-8	2-Chlorophenol	98 U
541-73-1	1,3-Dichlorobenzene	98 U
106-46-7	1,4-Dichlorobenzene	98 U
100-51-6	Benzyl Alcohol	98 U
95-50-1	1,2-Dichlorobenzene	98 U
95-48-7	2-Methylphenol	98 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	98 U
106-44-5	4-Methylphenol	98 U
621-64-7	N-Nitroso-Di-N-Propylamine	200 U
67-72-1	Hexachloroethane	98 U
98-95-3	Nitrobenzene	98 U
78-59-1	Isophorone	98 U
88-75-5	2-Nitrophenol	490 U
105-67-9	2,4-Dimethylphenol	98 U
65-85-0	Benzoic Acid	980 U
111-91-1	bis(2-Chloroethoxy) Methane	98 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	98 U
91-20-3	Naphthalene	990
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	98 U
59-50-7	4-Chloro-3-methylphenol	200 U
91-57-6	2-Methylnaphthalene	490
77-47-4	Hexachlorocyclopentadiene	490 U
88-06-2	2,4,6-Trichlorophenol	490 U
95-95-4	2,4,5-Trichlorophenol	490 U
91-58-7	2-Chloronaphthalene	98 U
88-74-4	2-Nitroaniline	490 U
131-11-3	Dimethylphthalate	98 U
208-96-8	Acenaphthylene	98 U
99-09-2	3-Nitroaniline	590 U
83-32-9	Acenaphthene	7,900 E 7800 D
51-28-5	2,4-Dinitrophenol	980 U
100-02-7	4-Nitrophenol	490 U
132-64-9	Dibenzofuran	1,300
606-20-2	2,6-Dinitrotoluene	490 U

FORM-1

JMB  
12/15/97

000666

00082



**ANALYTICAL  
RESOURCES  
INCORPORATED**

**ORGANICS ANALYSIS DATA SHEET**  
**PSDDA Semivolatiles by GC/MS**  
Page 2 of 2  
Lab Sample ID: T870H  
LIMS ID: 97-17203  
Matrix: Sediment  
Data Release Authorized: *MW*  
Reported: 10/30/97

Sample No: 9738 4081

WR-SD-SD032-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/17/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 55.7%  
pH: 6.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	490 U
84-66-2	Diethylphthalate	98 U
7005-72-3	4-Chlorophenyl-phenylether	98 U
86-73-7	Fluorene	3,500
100-01-6	4-Nitroaniline	490 U
534-52-1	4,6-Dinitro-2-Methylphenol	980 U
86-30-6	N-Nitrosodiphenylamine	98 U
101-55-3	4-Bromophenyl-phenylether	98 U
118-74-1	Hexachlorobenzene	98 U
87-86-5	Pentachlorophenol	490 U
85-01-8	Phenanthrene	27,000 E 36000 D
86-74-8	Carbazole	11,000 E 10000 D
120-12-7	Anthracene	9,000 E 8900 D
84-74-2	Di-n-Butylphthalate	98 U
206-44-0	Fluoranthene	47,000 E 81000 D
129-00-0	Pyrene	75,000 E 87000 D
85-68-7	Butylbenzylphthalate	98 U
91-94-1	3,3'-Dichlorobenzidine	490 U
56-55-3	Benzo(a)anthracene	71,000 E 67000 D
117-81-7	bis(2-Ethylhexyl)phthalate	390 E U
218-01-9	Chrysene	50,000 E 73000 D
117-84-0	Di-n-Octyl phthalate	98 U
205-99-2	Benzo(b)fluoranthene	61,000 E 80000 D
207-08-9	Benzo(k)fluoranthene	15,000 E 76000 D
50-32-8	Benzo(a)pyrene	53,000 E 94000 D
193-39-5	Indeno(1,2,3-cd)pyrene	34,000 E 50000 D
53-70-3	Dibenz(a,h)anthracene	16,000 E 25000 D
191-24-2	Benzo(g,h,i)perylene	30,000 E 44000 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	43.8%	d5-Phenol	42.0%
2-Fluorobiphenyl	50.2%	2-Fluorophenol	44.9%
d14-p-Terphenyl	108%	2,4,6-Tribromophenol	50.7%
d4-1,2-Dichlorobenzene	37.2%	d4-2-Chlorophenol	44.4%

FORM-1

000667

00083

*JMB*  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870H  
LIMS ID: 97-17203  
Matrix: Sediment

Sample No: 9738 4081  
WR-SD- SD032-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Aromatic_____	18.11	SVOA	7,000 JN
2. --	Unknown_PNA_____	20.24	SVOA	2,900 JN
3. --	Unknown_PNA_____	20.49	SVOA	8,600 JN
4. --	Unknown_PNA_____	20.62	SVOA	7,800 JN
5. --	Unknown_Aromatic_____	20.72	SVOA	7,100 JN
6. --	Unknown_C18.H14_PNA_____	21.30	SVOA	4,100 JN
7. --	Benzothiophene_Isomer_____	21.70	SVOA	3,500 JN
8. --	Unknown_PNA_____	21.81	SVOA	3,700 JN
9. --	Unknown_Aromatic_____	22.48	SVOA	5,900 JN
10. --	Unknown_Quinoline_____	22.62	SVOA	3,400 JN
11. --	Unknown_C19.H14_PNA_____	23.02	SVOA	4,400 JN
12. --	Unknown_____	23.21	SVOA	5,400 JN
13. --	Unknown_____	23.33	SVOA	7,000 JN
14. --	Unknown_____	24.02	SVOA	3,000 JN
15. --	Unknown_C20.H12_PNA_____	24.46	SVOA	5,300 JN
16. --	Unknown_C20.H12_PNA_____	24.76	SVOA	15,000 JN
17. --	Unknown_____	25.21	SVOA	4,600 JN
18. --	Unknown_____	25.28	SVOA	2,900 JN
19. --	Unknown_C22.H14_PNA_____	26.89	SVOA	2,900 JN
20. --	Unknown_C22.H12_PNA_____	27.37	SVOA	5,200 JN

FORM-1-B

00084

000668  
JMB  
(2/15/97)

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870H

LIMS ID: 97-17203

Matrix: Sediment

Data Release Authorized: *M*

Reported: 10/30/97



Sample No. 9738 4081

DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:100  
Percent Moisture: 55.7%  
pH: 6.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	2,000 U
111-44-4	Bis-(2-Chloroethyl) Ether	3,900 U
95-57-8	2-Chlorophenol	2,000 U
541-73-1	1,3-Dichlorobenzene	2,000 U
106-46-7	1,4-Dichlorobenzene	2,000 U
100-51-6	Benzyl Alcohol	2,000 U
95-50-1	1,2-Dichlorobenzene	2,000 U
95-48-7	2-Methylphenol	2,000 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	2,000 U
106-44-5	4-Methylphenol	2,000 U
621-64-7	N-Nitroso-Di-N-Propylamine	3,900 U
67-72-1	Hexachloroethane	2,000 U
98-95-3	Nitrobenzene	2,000 U
78-59-1	Isophorone	2,000 U
88-75-5	2-Nitrophenol	9,800 U
105-67-9	2,4-Dimethylphenol	2,000 U
65-85-0	Benzoic Acid	20,000 U
111-91-1	bis(2-Chloroethoxy) Methane	2,000 U
120-83-2	2,4-Dichlorophenol	5,900 U
120-82-1	1,2,4-Trichlorobenzene	2,000 U
91-20-3	Naphthalene	2,000 U
106-47-8	4-Chloroaniline	5,900 U
87-68-3	Hexachlorobutadiene	2,000 U
59-50-7	4-Chloro-3-methylphenol	3,900 U
91-57-6	2-Methylnaphthalene	2,000 U
77-47-4	Hexachlorocyclopentadiene	9,800 U
88-06-2	2,4,6-Trichlorophenol	9,800 U
95-95-4	2,4,5-Trichlorophenol	9,800 U
91-58-7	2-Chloronaphthalene	2,000 U
88-74-4	2-Nitroaniline	9,800 U
131-11-3	Dimethylphthalate	2,000 U
208-96-8	Acenaphthylene	2,000 U
99-09-2	3-Nitroaniline	12,000 U
83-32-9	Acenaphthene	7,800
51-28-5	2,4-Dinitrophenol	20,000 U
100-02-7	4-Nitrophenol	9,800 U
132-64-9	Dibenzofuran	2,000 U
606-20-2	2,6-Dinitrotoluene	9,800 U

FORM-1

00085

JMB  
12/15/97

ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870H

LIMS ID: 97-17203

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

Sample No. 9738 4081

DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/29/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:100

Percent Moisture: 55.7%

pH: 6.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	9,800 U
84-66-2	Diethylphthalate	2,000 U
7005-72-3	4-Chlorophenyl-phenylether	2,000 U
86-73-7	Fluorene	3,000
100-01-6	4-Nitroaniline	9,800 U
534-52-1	4,6-Dinitro-2-Methylphenol	20,000 U
86-30-6	N-Nitrosodiphenylamine	2,000 U
101-55-3	4-Bromophenyl-phenylether	2,000 U
118-74-1	Hexachlorobenzene	2,000 U
87-86-5	Pentachlorophenol	9,800 U
85-01-8	Phenanthrene	36,000
86-74-8	Carbazole	10,000
120-12-7	Anthracene	8,900
84-74-2	Di-n-Butylphthalate	2,000 U
206-44-0	Fluoranthene	81,000
129-00-0	Pyrene	87,000
85-68-7	Butylbenzylphthalate	2,000 U
91-94-1	3,3'-Dichlorobenzidine	9,800 U
56-55-3	Benzo(a)anthracene	67,000
117-81-7	bis(2-Ethylhexyl)phthalate	2,000 U
218-01-9	Chrysene	73,000
117-84-0	Di-n-Octyl phthalate	2,000 U
205-99-2	Benzo(b)fluoranthene	80,000
207-08-9	Benzo(k)fluoranthene	76,000
50-32-8	Benzo(a)pyrene	94,000
193-39-5	Indeno(1,2,3-cd)pyrene	50,000
53-70-3	Dibenz(a,h)anthracene	25,000
191-24-2	Benzo(g,h,i)perylene	44,000

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00086

000719

JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870H  
LIMS ID: 97-17203  
Matrix: Sediment

Sample No: 9738 4081  
DILUTION  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *WW*  
Reported: 10/30/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	---	18.65	SVOA	7,400 J
2.	Unknown_Aromatic	20.98	SVOA	16,000 J
3.	Unknown_C17.H12_PNA	21.11	SVOA	14,000 J
4.	Unknown_Aromatic	21.23	SVOA	6,100 J
5.	Unknown_C18.H14_PNA	21.84	SVOA	6,700 J
6.	Unknown_PNA	21.96	SVOA	5,200 J
7.	Benzothiophene_Isomer	22.20	SVOA	5,600 J
8.	Unknown_C18.H10_PNA	22.30	SVOA	9,300 J
9.	Unknown_Aromatic	22.34	SVOA	4,800 J
10.	Unknown_PNA	22.93	SVOA	16,000 J
11.	Unknown_Quinoline	23.10	SVOA	5,800 J
12.	Unknown_C19.H14_PNA	23.51	SVOA	9,200 J
13.	Unknown_Aromatic	23.70	SVOA	9,000 J
14.	Unknown	23.79	SVOA	16,000 J
15.	Unknown_C20.H12_PNA	24.90	SVOA	12,000 J
16.	Unknown_C20.H12_PNA	25.20	SVOA	32,000 J
17.	Unknown_PNA	25.65	SVOA	7,900 J
18.	Unknown	26.10	SVOA	5,500 J
19.	Unknown_C22.H14_PNA	26.87	SVOA	7,200 J
20.	Unknown_C22.H14_PNA	27.65	SVOA	7,000 J

FORM-1-B

00987

000720  
*JMB*  
02/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870I

LIMS ID: 97-17204

Matrix: Sediment

Data Release Authorized: Ww

Reported: 10/30/97

Sample No: 9738 4082

WR-SD- SD031-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 49.2%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	98 U
111-44-4	Bis-(2-Chloroethyl) Ether	200 U
95-57-8	2-Chlorophenol	98 U
541-73-1	1,3-Dichlorobenzene	98 U
106-46-7	1,4-Dichlorobenzene	98 U
100-51-6	Benzyl Alcohol	98 U
95-50-1	1,2-Dichlorobenzene	98 U
95-48-7	2-Methylphenol	98 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	98 U
106-44-5	4-Methylphenol	98 U
621-64-7	N-Nitroso-Di-N-Propylamine	200 U
67-72-1	Hexachloroethane	98 U
98-95-3	Nitrobenzene	98 U
78-59-1	Isophorone	98 U
88-75-5	2-Nitrophenol	490 U
105-67-9	2,4-Dimethylphenol	98 U
65-85-0	Benzoic Acid	980 U
111-91-1	bis(2-Chloroethoxy) Methane	98 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	98 U
91-20-3	Naphthalene	200
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	98 U
59-50-7	4-Chloro-3-methylphenol	200 U
91-57-6	2-Methylnaphthalene	98 U
77-47-4	Hexachlorocyclopentadiene	490 U
88-06-2	2,4,6-Trichlorophenol	490 U
95-95-4	2,4,5-Trichlorophenol	490 U
91-58-7	2-Chloronaphthalene	98 U
88-74-4	2-Nitroaniline	490 U
131-11-3	Dimethylphthalate	98 U
208-96-8	Acenaphthylene	160
99-09-2	3-Nitroaniline	590 U
83-32-9	Acenaphthene	470
51-28-5	2,4-Dinitrophenol	980 U
100-02-7	4-Nitrophenol	490 U
132-64-9	Dibenzofuran	120
606-20-2	2,6-Dinitrotoluene	490 U

FORM-1

00988

000765

JMB  
(2/15/97)

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870I  
LIMS ID: 97-17204  
Matrix: Sediment  
Data Release Authorized: *VW*  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4082  
WR-SD- SD031-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/20/97  
Instrument: finn8  
GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 49.2%  
pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	490 U
84-66-2	Diethylphthalate	98 U
7005-72-3	4-Chlorophenyl-phenylether	98 U
86-73-7	Fluorene	350
100-01-6	4-Nitroaniline	490 U
534-52-1	4,6-Dinitro-2-Methylphenol	980 U
86-30-6	N-Nitrosodiphenylamine	98 U
101-55-3	4-Bromophenyl-phenylether	98 U
118-74-1	Hexachlorobenzene	98 U
87-86-5	Pentachlorophenol	490 U
85-01-8	Phenanthrene	2,800
86-74-8	Carbazole	390
120-12-7	Anthracene	630
84-74-2	Di-n-Butylphthalate	98 U
206-44-0	Fluoranthene	4,700
129-00-0	Pyrene	5,500
85-68-7	Butylbenzylphthalate	98 U
91-94-1	3,3'-Dichlorobenzidine	490 U
56-55-3	Benzo(a)anthracene	3,200
117-81-7	bis(2-Ethylhexyl)phthalate	190 <i>plus</i>
218-01-9	Chrysene	3,300
117-84-0	Di-n-Octyl phthalate	98 U
205-99-2	Benzo(b)fluoranthene	4,900
207-08-9	Benzo(k)fluoranthene	3,700
50-32-8	Benzo(a)pyrene	4,900
193-39-5	Indeno(1,2,3-cd)pyrene	3,500
53-70-3	Dibenz(a,h)anthracene	1,000
191-24-2	Benzo(g,h,i)perylene	2,700

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.8%	d5-Phenol	46.3%
2-Fluorobiphenyl	58.2%	2-Fluorophenol	46.0%
d14-p-Terphenyl	68.8%	2,4,6-Tribromophenol	66.3%
d4-1,2-Dichlorobenzene	44.8%	d4-2-Chlorophenol	47.6%

FORM-1

00089

000766 JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4082

WR-SD- SD031-0000

Lab Sample ID: T870I  
LIMS ID: 97-17204  
Matrix: Sediment

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized:   
Reported: 10/30/97

Date Analyzed: 10/20/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_PNA_____	25.65	SVOA	510 J N
2.	-- Unknown_____	25.75	SVOA	1,000 J N
3.	-- Unknown_Organic_Acid_____	25.98	SVOA	720 J N
4.	-- Unknown_PNA_____	29.32	SVOA	1,100 J N
5.	-- Unknown_PNA_____	29.52	SVOA	640 J N
6.	-- Benzo [b] naphtho[1,2-d_Iso	31.22	SVOA	820 J N
7.	-- Unknown_PNA_+ C.E._____	31.35	SVOA	1,300 J N
8.	-- Unknown_PNA_____	32.35	SVOA	1,200 J N
9.	-- Unknown_Alkyl_PNA_____	33.30	SVOA	1,100 J N
10.	-- Unknown_____	33.65	SVOA	1,400 J N
11.	-- Unknown_____	33.72	SVOA	960 J N
12.	-- Unknown_____	33.82	SVOA	830 J N
13.	-- Unknown_____	35.33	SVOA	960 J N
14.	-- Unknown_PNA_____	35.47	SVOA	1,100 J N
15.	-- Unknown_PNA_____	35.93	SVOA	3,700 J N
16.	-- Unknown_PNA_____	36.28	SVOA	1,600 J N
17.	-- Unknown_PNA_____	39.03	SVOA	1,100 J N
18.	-- Unknown_____	39.65	SVOA	1,000 J N
19.	-- Unknown_____	39.82	SVOA	860 J N
20.	-- Unknown_____	40.25	SVOA	1,800 J N

FORM-1-B

00090

000767 JMB  
(2/15/97)

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T870J  
LIMS ID: 97-17205  
Matrix: Sediment  
Data Release Authorized: *WW*  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4083

WR-SD-SD016-0600

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/24/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 44.2%  
pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	29
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	28
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00091

000824

*JMB  
12/15/97*

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870J

LIMS ID: 97-17205

Matrix: Sediment

Data Release Authorized: MM

Reported: 10/30/97



Sample No: 9738 4083

WR-SD- SD616-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/24/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 44.2%  
pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U J
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U J
85-01-8	Phenanthrene	110
86-74-8	Carbazole	37 J
120-12-7	Anthracene	26
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	240
129-00-0	Pyrene	230
85-68-7	Butylbenzylphthalate	31
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	130
117-81-7	bis(2-Ethylhexyl)phthalate	130 J U S
218-01-9	Chrysene	180
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	170
207-08-9	Benzo(k)fluoranthene	160
50-32-8	Benzo(a)pyrene	200
193-39-5	Indeno(1,2,3-cd)pyrene	120
53-70-3	Dibenz(a,h)anthracene	44
191-24-2	Benzo(g,h,i)perylene	130

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.9%	d5-Phenol	45.4%
2-Fluorobiphenyl	50.8%	2-Fluorophenol	53.3%
d14-p-Terphenyl	68.7%	2,4,6-Tribromophenol	74.0%
d4-1,2-Dichlorobenzene	42.2%	d4-2-Chlorophenol	47.1%

FORM-1

00092

JMB  
12/15/97

000825



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870J  
LIMS ID: 97-17205  
Matrix: Sediment

Sample No: 9738 4083  
WR-SD-S D016-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MW  
Reported: 10/30/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.71	SVOA	180 JNB R
2. --	Unknown_Alcohol	13.95	SVOA	340 JN
3. --	Unknown_Organic_Acid	16.63	SVOA	120 JN
4. --	Unknown	18.24	SVOA	220 JN
5. --	Unknown_Organic_Acid	18.39	SVOA	180 JN
6. --	Unknown_PNA	19.24	SVOA	200 JN
7. --	Unknown_Aromatic	19.67	SVOA	200 JN
8. --	Unknown_Aromatic	20.62	SVOA	560 JN
9. --	Unknown	23.51	SVOA	130 JN
10. --	Unknown_Aldehyde	25.44	SVOA	180 JN
11. --	Unknown	26.05	SVOA	240 JN
12. --	Unknown	26.19	SVOA	190 JN
13. --	Unknown_Aromatic	26.37	SVOA	170 JN
14. --	Unknown_Sterol_type	26.47	SVOA	180 JN
15. --	Unknown_Sterol_type	26.92	SVOA	130 JN
16. --	Unknown_Aromatic	27.48	SVOA	890 JN
17. --	Unknown	27.67	SVOA	240 JN
18. --	Unknown_Aromatic	27.78	SVOA	790 JN
19. --	Unknown	28.02	SVOA	140 JN
20. --	Unknown_Sterol_type	28.23	SVOA	220 JN

FORM-1-B

00093

QMB  
000826 12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870K

LIMS ID: 97-17206

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4084

WR-SD- SD027-6600

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/21/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.7%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	36
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00094

*JMB 10/15/97*  
~~000873~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870K

LIMS ID: 97-17206

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4084

WR-SD-SD027-6060

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/21/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.7%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	27
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	300
86-74-8	Carbazole	58
120-12-7	Anthracene	50
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	520
129-00-0	Pyrene	630
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	380
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>µg</i>
218-01-9	Chrysene	420
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	680
207-08-9	Benzo(k)fluoranthene	460
50-32-8	Benzo(a)pyrene	650
193-39-5	Indeno(1,2,3-cd)pyrene	420
53-70-3	Dibenz(a,h)anthracene	120
191-24-2	Benzo(g,h,i)perylene	330

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	46.4%	d5-Phenol	46.7%
2-Fluorobiphenyl	51.0%	2-Fluorophenol	40.7%
d14-p-Terphenyl	64.2%	2,4,6-Tribromophenol	65.2%
d4-1,2-Dichlorobenzene	38.3%	d4-2-Chlorophenol	45.9%

FORM-1

00095

000874

*JMB*  
*2/5/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870K  
LIMS ID: 97-17206  
Matrix: Sediment

Sample No: 9738 4084  
WR-SD-SD027-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	7.53	SVOA	320 JNB JN
2. --	Unknown_Organic_Acid_____	24.22	SVOA	150 JN
3. --	Unknown_Organic_Acid_____	24.35	SVOA	180 JN
4. --	Unknown_____	25.83	SVOA	760 JN
5. --	Unknown_____	25.93	SVOA	280 JN
6. 544-63-8	Tetradecanoic_acid_____	26.08	SVOA	610 JN
7. 57-11-4	Octadecanoic_acid_____	28.47	SVOA	130 JN
8. --	Unknown_____	29.35	SVOA	260 JN
9. --	Unknown_PNA + C.E._____	31.38	SVOA	440 JN
10. --	Unknown_____	33.45	SVOA	440 JN
11. --	Unknown_____	33.68	SVOA	510 JN
12. --	Unknown_____	34.98	SVOA	390 JN
13. --	Unknown_____	35.38	SVOA	1,100 JN
14. --	Unknown_PNA_____	35.97	SVOA	500 JN
15. --	Unknown_Aldehyde_____	37.17	SVOA	680 JN
16. --	Unknown_____	38.45	SVOA	340 JN
17. --	Unknown_____	39.70	SVOA	720 JN
18. 471-68-1	Olean-12-ene_____	39.87	SVOA	770 JN
19. --	Unknown_____	40.17	SVOA	440 JN
20. --	Unknown_____	40.30	SVOA	1,300 JN

FORM-1-B

00096

000875

*JMB*  
*(2/15/97)*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870L

LIMS ID: 97-17207

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4085

WR-SD-SD025-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.6%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	20
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	22
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	25
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00097

000929

*9MB*  
*12/15/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870L

LIMS ID: 97-17207

Matrix: Sediment

Data Release Authorized: MMW

Reported: 10/30/97

Sample No: 9738 4085

WR-SD- SD025-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.6%

pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	22
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	160
86-74-8	Carbazole	25
120-12-7	Anthracene	30
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	280
129-00-0	Pyrene	300
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benz(a)anthracene	170
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>plus minus</i>
218-01-9	Chrysene	240
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benz(b)fluoranthene	250
207-08-9	Benz(k)fluoranthene	230
50-32-8	Benz(a)pyrene	260
193-39-5	Indeno(1,2,3-cd)pyrene	160
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	96

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.4%	d5-Phenol	55.3%
2-Fluorobiphenyl	63.4%	2-Fluorophenol	51.5%
d14-p-Terphenyl	73.6%	2,4,6-Tribromophenol	97.3%
d4-1,2-Dichlorobenzene	56.5%	d4-2-Chlorophenol	55.8%

FORM-1

00098

JMB  
(2/5/97)

000930



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870L  
LIMS ID: 97-17207  
Matrix: Sediment

Sample No: 9738 4085  
WR-SD-SD025-0002

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MMW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	7.28	SVOA	440 JNB JN
2. 544-63-8	Tetradecanoic acid	23.10	SVOA	140 JN
3. --	Unknown_Organic_Acid	23.98	SVOA	220 JN
4. 638-53-9	Tridecanoic acid	24.12	SVOA	210 JN
5. 2091-29-4	9-Hexadecenoic acid	25.60	SVOA	860 JN
6. --	Unknown	25.70	SVOA	300 JN
7. 57-10-3	Hexadecanoic acid	25.85	SVOA	650 JN
8. --	Unknown	26.22	SVOA	190 JN
9. --	Unknown	27.98	SVOA	150 JN
10. 57-11-4	Octadecanoic acid	28.23	SVOA	130 JN
11. --	Unknown_Alkyl_PNA	29.08	SVOA	360 JN
12. --	Unknown_Aldehyde	33.20	SVOA	240 JN
13. --	Unknown	33.40	SVOA	440 JN
14. --	Unknown	33.62	SVOA	400 JN
15. --	Unknown	35.08	SVOA	350 JN
16. --	Unknown_Aldehyde	35.13	SVOA	820 JN
17. --	Unknown_Aldehyde	36.92	SVOA	520 JN
18. --	Unknown	39.40	SVOA	620 JN
19. 471-68-1	Olean-12-ene	39.55	SVOA	680 JN
20. --	Unknown	39.85	SVOA	240 JN

FORM-1-B

00099

JMB  
12/15/97

000931

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870M

LIMS ID: 97-17208

Matrix: Sediment

Data Release Authorized: WNW

Reported: 10/30/97

Sample No: 9738 4086

WR-SD- SD021-0000

QC Report No: T870-Ray F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.4%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	21
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	31
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

000984

00100

JMB  
12/15/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870M  
LIMS ID: 97-17208  
Matrix: Sediment  
Data Release Authorized: MM  
Reported: 10/30/97

Sample No: 9738 4086  
WR-SD-SD021-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/17/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 49.4%  
pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	22
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	180
86-74-8	Carbazole	42
120-12-7	Anthracene	31
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	390
129-00-0	Pyrene	310
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	180
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	240
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	250
207-08-9	Benzo(k)fluoranthene	220
50-32-8	Benzo(a)pyrene	260
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	63
191-24-2	Benzo(g,h,i)perylene	130

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.1%	d5-Phenol	61.6%
2-Fluorobiphenyl	61.0%	2-Fluorophenol	59.5%
d14-p-Terphenyl	64.2%	2,4,6-Tribromophenol	77.0%
d4-1,2-Dichlorobenzene	44.6%	d4-2-Chlorophenol	59.4%

FORM-1

00101

000985  
JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870M  
LIMS ID: 97-17208  
Matrix: Sediment

Sample No: 9738 4086  
WR-SD- SD021-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MW  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachlo	6.54	SVOA	260 JNB R
2. --	Unknown_____	18.54	SVOA	270 J N
3. --	Unknown_Aromatic_____	19.43	SVOA	220 J N
4. --	Unknown_Aromatic_____	20.38	SVOA	350 J N
5. --	Unknown_Aldehyde_____	22.84	SVOA	190 J N
6. --	Unknown_Aromatic_____	23.14	SVOA	240 J N
7. --	Unknown_____	23.28	SVOA	280 J N
8. --	Unknown_Aldehyde_____	24.06	SVOA	920 J N
9. --	Unknown_Sterol_type_____	24.45	SVOA	300 J N
10. --	Unknown_C20.H12_PNA_____	24.65	SVOA	170 J N
11. --	Unknown_Aldehyde_____	25.19	SVOA	490 J N
12. --	Unknown_Aromatic_____	25.32	SVOA	220 J N
13. --	Unknown_Sterol_type_____	25.69	SVOA	160 J N
14. --	Unknown_____	25.81	SVOA	470 J N
15. --	Unknown_Aldehyde_____	26.25	SVOA	290 J N
16. --	Unknown_Aromatic_____	27.33	SVOA	620 J N
17. --	Unknown_____	27.51	SVOA	340 J N
18. --	Unknown_Sterol_type_____	27.64	SVOA	630 J N
19. --	Unknown_____	28.00	SVOA	140 J N
20. --	Unknown_Sterol_type_____	28.11	SVOA	240 J N

00102

FORM-1-B

000986 JMB  
(2/15/97)



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870N

LIMS ID: 97-17209

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 10/30/97

Sample No: 9738 4088

WR-SD-SD021-1000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	23
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Choronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	29
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00103

*JMB*  
*12/15/97*

~~001032~~

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 2 of 2  
 Lab Sample ID: T870N  
 LIMS ID: 97-17209  
 Matrix: Sediment  
 Data Release Authorized: *VW*  
 Reported: 10/30/97



Sample No: 9738 4088  
 WR-SD-SD021-1000  
 QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00  
 Date Sampled: 09/18/97  
 Date Received: 09/20/97

ANALYTICAL  
 RESOURCES  
 INCORPORATED

Date extracted: 10/01/97  
 Date analyzed: 10/17/97  
 Instrument: nt1  
 GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 46.7%  
 pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	22
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	150
86-74-8	Carbazole	36
120-12-7	Anthracene	29
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	340
129-00-0	Pyrene	280
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	170
117-81-7	bis(2-Ethylhexyl)phthalate	150 <i>plus</i>
218-01-9	Chrysene	230
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	230
207-08-9	Benzo(k)fluoranthene	240
50-32-8	Benzo(a)pyrene	240
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	60
191-24-2	Benzo(g,h,i)perylene	100

#### Semivolatiles Surrogate Recovery

d5-Nitrobenzene	55.9%	d5-Phenol	58.1%
2-Fluorobiphenyl	59.3%	2-Fluorophenol	56.7%
d14-p-Terphenyl	70.2%	2,4,6-Tribromophenol	79.5%
d4-1,2-Dichlorobenzene	47.0%	d4-2-Chlorophenol	56.9%

FORM-1

00104

001033  
*JMB*  
 12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870N  
LIMS ID: 97-17209  
Matrix: Sediment

Sample No: 9738 4088  
WR-SD-SD021-1000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.55	SVOA	240 S&B R
2. --	Unknown_Organic_Acid_____	17.99	SVOA	140 J N
3. --	Unknown_Organic_Acid_____	18.13	SVOA	150 J N
4. --	Unknown_Aromatic_____	19.43	SVOA	170 J N
5. --	Unknown_Aromatic_____	20.38	SVOA	240 J N
6. --	Unknown_Aldehyde_____	22.85	SVOA	180 J N
7. --	Unknown_Aromatic_____	23.14	SVOA	210 J N
8. --	Unknown_Aldehyde_____	24.06	SVOA	710 J N
9. --	Unknown_C20.H12_PNA_____	24.65	SVOA	140 J N
10. --	Unknown_Aldehyde_____	25.19	SVOA	400 J N
11. --	Unknown_____	25.31	SVOA	150 J N
12. --	Unknown_Aromatic_____	25.69	SVOA	120 J N
13. --	Unknown_Sterol_type_____	25.96	SVOA	300 J N
14. --	Unknown_Aromatic_____	26.16	SVOA	130 J N
15. --	Unknown_Sterol_type_____	26.25	SVOA	210 J N
16. --	Unknown_Aromatic_____	27.33	SVOA	540 J N
17. --	Unknown_____	27.51	SVOA	280 J N
18. --	Unknown_Sterol_type_____	27.64	SVOA	570 J N
19. --	Unknown_____	28.00	SVOA	110 J N
20. --	Unknown_Sterol_type_____	28.11	SVOA	240 J N

FORM-1-B

001034

00105

JMB  
2/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T8700

LIMS ID: 97-17210

Matrix: Sediment

Data Release Authorized: MM

Reported: 10/30/97

Sample No: 9738 4089

WR-SD- SDG29-6000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/24/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.2%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	74
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	37
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	88
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	37
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00106

001081

JMB  
12/15/97



## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T8700

LIMS ID: 97-17210

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

Sample No: 9738 4089

WR-SD-SD029-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/24/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.2%

pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	67
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	490
86-74-8	Carbazole	190
120-12-7	Anthracene	97
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,200
129-00-0	Pyrene	1,200
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benz(a)anthracene	620
117-81-7	bis(2-Ethylhexyl)phthalate	91 µg/U
218-01-9	Chrysene	790
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benz(b)fluoranthene	1,000
207-08-9	Benz(k)fluoranthene	500
50-32-8	Benz(a)pyrene	810
193-39-5	Indeno(1,2,3-cd)pyrene	470
53-70-3	Dibenz(a,h)anthracene	210
191-24-2	Benzo(g,h,i)perylene	470

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	26.6%	d5-Phenol	26.2%
2-Fluorobiphenyl	30.7%	2-Fluorophenol	30.6%
d14-p-Terphenyl	48.2%	2,4,6-Tribromophenol	48.0%
d4-1,2-Dichlorobenzene	22.7%	d4-2-Chlorophenol	26.2%

FORM-1

00107

JMB  
(2/15/97)

001082



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T8700  
LIMS ID: 97-17210  
Matrix: Sediment

Sample No: 9738 4089  
WR-SD-SD029-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: W  
Reported: 10/30/97

Date Analyzed: 10/24/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	18.07	SVOA	400 J N
2.	-- Unknown _____	18.34	SVOA	740 J N
3.	-- Unknown _____	18.43	SVOA	1,300 J N
4.	-- Unknown _____	18.67	SVOA	260 J N
5.	-- Unknown _____	19.00	SVOA	490 J N
6.	-- Unknown_Aromatic _____	19.38	SVOA	3,900 J N
7.	-- Unknown_Aromatic _____	19.70	SVOA	680 J N
8.	-- Unknown _____	19.88	SVOA	1,700 J N
9.	-- Unknown_Aromatic _____	20.70	SVOA	3,600 J N
10.	-- Unknown_PNA _____	20.81	SVOA	360 J N
11.	-- Unknown_PNA _____	23.22	SVOA	320 J N
12.	-- Unknown_Sterol_type _____	24.69	SVOA	300 J N
13.	-- Unknown_C20.H12_PNA _____	24.91	SVOA	350 J N
14.	-- Unknown_Sterol_type _____	25.93	SVOA	280 J N
15.	-- Unknown _____	26.38	SVOA	280 J N
16.	-- Unknown _____	27.39	SVOA	630 J N
17.	-- Unknown_Aromatic _____	27.49	SVOA	690 J N
18.	-- Unknown _____	27.67	SVOA	270 J N
19.	-- Unknown_Sterol_type _____	27.78	SVOA	430 J N
20.	-- Unknown_Sterol_type _____	28.24	SVOA	300 J N

FORM-1-B

00108

JMB  
12/15/97

001083

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 1 of 2  
 Lab Sample ID: T870P  
 LIMS ID: 97-17211  
 Matrix: Sediment  
 Data Release Authorized: WWW  
 Reported: 10/30/97



ANALYTICAL  
 RESOURCES  
 INCORPORATED

Sample No: 9738 4090

WR-SD- SD002-0000

QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
 Date Received: 09/20/97

Date extracted: 10/01/97  
 Date analyzed: 10/25/97  
 Instrument: nt1  
 GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 22.2%  
 pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00109

JMB  
 12/15/97  
 001133

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870P

LIMS ID: 97-17211

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97



Sample No: 9738 4090

WR-SD-SD002-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/25/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 22.2%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	20 U
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	22
129-00-0	Pyrene	40
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	35 PUS
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.0%	d5-Phenol	24.4%
2-Fluorobiphenyl	44.8%	2-Fluorophenol	22.8%
d14-p-Terphenyl	76.1%	2,4,6-Tribromophenol	42.2%
d4-1,2-Dichlorobenzene	42.8%	d4-2-Chlorophenol	31.8%

FORM-1

00110

001134

JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870P  
LIMS ID: 97-17211  
Matrix: Sediment

Sample No: 9738 4090  
WR-SD-SD002-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MMW*  
Reported: 10/30/97

Date Analyzed: 10/25/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachlo	6.70	SVOA	260 JNB-R
2. --	Unknown_Cycloalkane_____	14.01	SVOA	210 JN
3. --	Unknown_____	15.98	SVOA	93 JN
4. --	Unknown_Hydrocarbon_____	20.12	SVOA	46 J N
5. --	Unknown_Aldehyde_____	21.77	SVOA	44 J N
6. --	Unknown_Hydrocarbon_____	22.19	SVOA	87 J N
7. --	Unknown_Hydrocarbon_____	22.82	SVOA	57 J N
8. --	Unknown_Hydrocarbon_____	23.44	SVOA	190 J N
9. --	Unknown_Hydrocarbon_____	24.60	SVOA	230 J N
10. --	Unknown_____	25.20	SVOA	120 J N
11. --	Unknown_____	25.42	SVOA	410 J N
12. --	Unknown_Hydrocarbon_____	25.68	SVOA	120 J N
13. --	Unknown_____	27.36	SVOA	71 J N
14. --	Unknown_____	27.74	SVOA	86 J N
15. --	Unknown_Sterol_type_____	28.18	SVOA	180 J N
16.	_____	_____	_____	_____
17.	_____	_____	_____	_____
18.	_____	_____	_____	_____
19.	_____	_____	_____	_____
20.	_____	_____	_____	_____

FORM-1-B

*JMB*  
*12/15/97*

*001135*

**00111**

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 1 of 2  
Lab Sample ID: T870Q  
LIMS ID: 97-17212  
Matrix: Sediment  
Data Release Authorized: WWW  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4091

WR-SD- SD004-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/25/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 53.4 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 23.8%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	37 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	37 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	56 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	56 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	37 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	94 U
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00112

JMB  
12/15/97  
001162



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870Q  
LIMS ID: 97-17212  
Matrix: Sediment  
Data Release Authorized: *WW*  
Reported: 10/30/97

Sample No: 9738 4091

WR-SD- SD004-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/25/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 53.4 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 23.8%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	94 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U <i>J</i>
85-01-8	Phenanthrene	190
86-74-8	Carbazole	33 <i>J</i>
120-12-7	Anthracene	24
84-74-2	Di-n-Butylphthalate	19 U <i>J</i>
206-44-0	Fluoranthene	340
129-00-0	Pyrene	320
85-66-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	77
117-81-7	bis(2-Ethylhexyl)phthalate	46 <i>plus J</i>
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	96
207-08-9	Benzo(k)fluoranthene	77
50-32-8	Benzo(a)pyrene	100
193-39-5	Indeno(1,2,3-cd)pyrene	54
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	60

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.8%	d5-Phenol	47.9%
2-Fluorobiphenyl	52.0%	2-Fluorophenol	55.5%
d14-p-Terphenyl	71.9%	2,4,6-Tribromophenol	72.9%
d4-1,2-Dichlorobenzene	44.5%	d4-2-Chlorophenol	48.4%

FORM-1

00113

*JMB 12/15/97*

*001163*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870Q  
LIMS ID: 97-17212  
Matrix: Sediment

Sample No: 9738 4091  
WR-SD-SD004-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *VWV*  
Reported: 10/30/97

Date Analyzed: 10/25/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.71	SVOA	180 ENB-R
2. --	Unknown_Alcohol	14.01	SVOA	110 JN
3. --	Unknown	15.98	SVOA	130 JN
4. --	Unknown_Cycloalkane	18.08	SVOA	42 JN
5. --	Unknown_PNA	18.35	SVOA	78 JN
6. --	Unknown_Aromatic	18.75	SVOA	51 JN
7. --	Unknown_PNA	19.23	SVOA	44 JN
8. --	Unknown	19.67	SVOA	53 JN
9. --	Unknown	19.78	SVOA	77 JN
10. --	Unknown_Aromatic	20.59	SVOA	98 JN
11. --	Unknown_Aldehyde	23.09	SVOA	65 JN
12. --	Unknown_Aldehyde	24.30	SVOA	240 JN
13. --	Unknown_Aldehyde	25.43	SVOA	120 JN
14. --	Unknown_Hydrocarbon	25.69	SVOA	310 JN
15. --	Unknown_Sterol_type	25.89	SVOA	130 JN
16. --	Unknown_Sterol_type	26.18	SVOA	110 JN
17. --	Unknown	27.37	SVOA	69 JN
18. --	Unknown_Aromatic	27.46	SVOA	190 JN
19. --	Unknown_Sterol_type	27.75	SVOA	280 JN
20. --	Unknown_Sterol_type	28.20	SVOA	210 JN

FORM-1-B

*JMB 12/15/97*  
~~001164~~

00114



ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870R

LIMS ID: 97-17213

Matrix: Sediment

Data Release Authorized: *W.W.*

Reported: 10/30/97

Sample No: 9738 4093

WR-SD-SD006-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.1%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	21
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	59 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00115

*JMB*  
*12/15/97*  
~~001206~~

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870R  
LIMS ID: 97-17213  
Matrix: Sediment  
Data Release Authorized: *WW*  
Reported: 10/30/97



Sample No: 9738 4093  
WR-SD- SD006-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Date extracted: 10/01/97  
Date analyzed: 10/16/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 47.1%  
pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	22
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	120
86-74-8	Carbazole	31 <i>J</i>
120-12-7	Anthracene	31
84-74-2	Di-n-Butylphthalate	20 U <i>J</i>
206-44-0	Fluoranthene	200
129-00-0	Pyrene	170
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	86
117-81-7	bis(2-Ethylhexyl)phthalate	320 <i>J</i>
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	94
50-32-8	Benzo(a)pyrene	110
193-39-5	Indeno(1,2,3-cd)pyrene	71
53-70-3	Dibenz(a,h)anthracene	27
191-24-2	Benzo(g,h,i)perylene	59 <i>J</i>

#### Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.9%	d5-Phenol	50.0%
2-Fluorobiphenyl	55.8%	2-Fluorophenol	49.1%
d14-p-Terphenyl	66.7%	2,4,6-Tribromophenol	74.0%
d4-1,2-Dichlorobenzene	39.3%	d4-2-Chlorophenol	49.8%

FORM-1

00116

*JMB*  
*12/15/97*  
*001207*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870R  
LIMS ID: 97-17213  
Matrix: Sediment

Sample No: 9738 4093  
WR-SD- SD006-0006  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *WW*  
Reported: 10/30/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.58	SVOA	260 JNB-R
2. --	Unknown_____	17.45	SVOA	320 JN
3. --	Unknown_____	18.57	SVOA	150 JN
4. --	Unknown_____	19.03	SVOA	120 J N
5. --	Unknown_Aromatic_____	19.42	SVOA	260 J N
6. --	Unknown_Aromatic_____	20.42	SVOA	470 J N
7. --	Unknown_Aldehyde_____	22.89	SVOA	290 J N
8. --	Unknown_____	23.33	SVOA	290 J N
9. --	Unknown_Alcohol_____	24.50	SVOA	390 J N
10. --	Unknown_Aldehyde_____	25.23	SVOA	790 J N
11. --	Unknown_Sterol_type_____	26.02	SVOA	690 J N
12. --	Unknown_Sterol_type_____	26.20	SVOA	280 J N
13. --	Unknown_Sterol_type_____	26.30	SVOA	510 J N
14. --	Unknown_Sterol_type_____	26.79	SVOA	280 J N
15. --	Unknown_____	27.30	SVOA	760 J N
16. --	Unknown_Aromatic_____	27.38	SVOA	740 J N
17. --	Unknown_____	27.58	SVOA	270 J N
18. --	Unknown_____	27.71	SVOA	980 J N
19. --	Unknown_Aromatic_____	28.07	SVOA	250 J N
20. --	Unknown_Sterol_type_____	28.18	SVOA	490 J N

FORM-1-B

00117

JMB  
12/15/97  
001208

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870S

LIMS ID: 97-17214

Matrix: Sediment

Data Release Authorized: WWW

Reported: 10/30/97



Sample No: 9738 4094

WR-SD-SD007-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/25/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.1%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	21
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00118

JMB  
12/15/97  
001254

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870S

LIMS ID: 97-17214

Matrix: Sediment

Data Release Authorized: *WW*

Reported: 10/30/97

Date extracted: 10/01/97

Date analyzed: 10/25/97

Instrument: nt1

GPC Cleanup: YES

Sample No: 9738 4094

WR-SD- SD007-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.1%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	26
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	100
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U <i>J</i>
206-44-0	Fluoranthene	160
129-00-0	Pyrene	120
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	53
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>uJ</i>
218-01-9	Chrysene	72
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	60
207-08-9	Benzo(k)fluoranthene	61
50-32-8	Benzo(a)pyrene	59
193-39-5	Indeno(1,2,3-cd)pyrene	35
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	37

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	36.1%	d5-Phenol	30.2%
2-Fluorobiphenyl	36.0%	2-Fluorophenol	36.3%
d14-p-Terphenyl	50.2%	2,4,6-Tribromophenol	52.0%
d4-1,2-Dichlorobenzene	26.4%	d4-2-Chlorophenol	31.7%

FORM-1

00119

001255

*JMB  
12/15/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870S  
LIMS ID: 97-17214  
Matrix: Sediment

Sample No: 9738 4094  
WR-SD - SD007-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MW*  
Reported: 10/30/97

Date Analyzed: 10/25/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.71	SVOA	220 JNB R
2. --	Unknown_Organic_Acid_____	16.62	SVOA	64 J N
3. --	Unknown_____	18.11	SVOA	83 J N
4. --	Unknown_Organic_Acid_____	18.22	SVOA	150 J N
5. --	Unknown_Organic_Acid_____	18.38	SVOA	140 J N
6. --	Unknown_____	19.03	SVOA	59 J N
7. --	Unknown_____	19.67	SVOA	120 J N
8. --	Unknown_Aromatic_____	20.61	SVOA	340 J N
9. --	Unknown_Aldehyde_____	23.09	SVOA	210 J N
10. --	Unknown_Aromatic_____	23.36	SVOA	250 J N
11. --	Unknown_____	23.51	SVOA	180 J N
12. --	Unknown_Aldehyde_____	24.32	SVOA	690 J N
13. --	Unknown_Aldehyde_____	25.43	SVOA	260 J N
14. --	Unknown_Aromatic_____	26.19	SVOA	230 J N
15. --	Unknown_Sterol_type_____	26.93	SVOA	260 J N
16. --	Unknown_____	27.48	SVOA	1,000 J N
17. --	Unknown_____	27.67	SVOA	460 J N
18. --	Unknown_____	27.77	SVOA	1,000 J N
19. --	Unknown_____	28.11	SVOA	310 J N
20. --	Unknown_Sterol_type_____	28.22	SVOA	400 J N

FORM-1-B

00120

JMB  
12/15/97

001258



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870T

LIMS ID: 97-17215

Matrix: Sediment

Data Release Authorized: *VWV*

Reported: 10/30/97

Sample No: 9738 4095

WR-SD-SD008-0006

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.2%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	39
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	30
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	23
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	97
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	48
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00121

001301

JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870T

LIMS ID: 97-17215

Matrix: Sediment

Data Release Authorized: *VW*

Reported: 10/30/97

Sample No: 9738 4095

WR-SD-SD008-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.2%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	87
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	810
86-74-8	Carbazole	220 <i>J</i>
120-12-7	Anthracene	150
84-74-2	Di-n-Butylphthalate	19 U <i>J</i>
206-44-0	Fluoranthene	-2,100 <i>E</i> 2200 <i>D</i>
129-00-0	Pyrene	1,400
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	530
117-81-7	bis(2-Ethylhexyl)phthalate	210 <i>X</i>
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	860
207-08-9	Benzo(k)fluoranthene	600
50-32-8	Benzo(a)pyrene	510
193-39-5	Indeno(1,2,3-cd)pyrene	260
53-70-3	Dibenz(a,h)anthracene	110
191-24-2	Benzo(g,h,i)perylene	200 <i>J</i>

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.7%	d5-Phenol	46.6%
2-Fluorobiphenyl	58.4%	2-Fluorophenol	44.8%
d14-p-Terphenyl	76.3%	2,4,6-Tribromophenol	81.8%
d4-1,2-Dichlorobenzene	34.9%	d4-2-Chlorophenol	46.3%

FORM-1

00122

001302

*JMB*  
*12/15/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870T  
LIMS ID: 97-17215  
Matrix: Sediment

Sample No: 9738 4095  
WR-SD- SD008-0060

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *WW*  
Reported: 10/30/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.58	SVOA	200 <del>JNB</del> -R
2. --	Unknown_C15.H12_PNA	17.95	SVOA	110 J N
3. --	Unknown_C15.H12_PNA	18.03	SVOA	120 J N
4. --	Unknown_Aromatic	18.13	SVOA	350 J N
5. 84-65-1	9,10-Anthracenedione	18.57	SVOA	320 J N
6. --	Unknown_C16.H14_PNA	19.04	SVOA	250 J N
7. --	Unknown	20.43	SVOA	540 J N
8. --	Benzothiophene_Isomer	21.70	SVOA	400 J N
9. --	Unknown_Aldehyde	22.90	SVOA	230 J N
10. --	Unknown	23.19	SVOA	170 J N
11. --	Unknown_Aldehyde	24.11	SVOA	880 J N
12. --	Unknown_C20.H12_PNA	24.72	SVOA	370 J N
13. --	Unknown_Aldehyde	25.24	SVOA	560 J N
14. --	Unknown_Sterol_type	25.74	SVOA	270 J N
15. --	Unknown_Sterol_type	26.01	SVOA	190 J N
16. --	Unknown_Aromatic	27.38	SVOA	700 J N
17. --	Unknown	27.57	SVOA	240 J N
18. --	Unknown_Sterol_type	27.71	SVOA	670 J N
19. --	Unknown	28.07	SVOA	180 J N
20. --	Unknown_Sterol_type	28.18	SVOA	280 J N

FORM-1-B

00123

*JMB*  
*12/15/97*

~~001303~~

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870T

LIMS ID: 97-17215

Matrix: Sediment

Data Release Authorized:

Reported: 10/30/97

Sample No. 9738 4095  
DILUTION

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:3  
Percent Moisture: 45.2%  
pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	58 U
111-44-4	Bis-(2-Chloroethyl) Ether	120 U
95-57-8	2-Chlorophenol	58 U
541-73-1	1,3-Dichlorobenzene	58 U
106-46-7	1,4-Dichlorobenzene	58 U
100-51-6	Benzyl Alcohol	58 U
95-50-1	1,2-Dichlorobenzene	58 U
95-48-7	2-Methylphenol	58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58 U
106-44-5	4-Methylphenol	58 U
621-64-7	N-Nitroso-Di-N-Propylamine	120 U
67-72-1	Hexachloroethane	58 U
98-95-3	Nitrobenzene	58 U
78-59-1	Isophorone	58 U
88-75-5	2-Nitrophenol	290 U
105-67-9	2,4-Dimethylphenol	58 U
65-85-0	Benzoic Acid	580 U
111-91-1	bis(2-Chloroethoxy) Methane	58 U
120-83-2	2,4-Dichlorophenol	170 U
120-82-1	1,2,4-Trichlorobenzene	58 U
91-20-3	Naphthalene	58 U
106-47-8	4-Chloroaniline	170 U
87-68-3	Hexachlorobutadiene	58 U
59-50-7	4-Chloro-3-methylphenol	120 U
91-57-6	2-Methylnaphthalene	58 U
77-47-4	Hexachlorocyclopentadiene	290 U
88-06-2	2,4,6-Trichlorophenol	290 U
95-95-4	2,4,5-Trichlorophenol	290 U
91-58-7	2-Chloronaphthalene	58 U
88-74-4	2-Nitroaniline	290 U
131-11-3	Dimethylphthalate	58 U
208-96-8	Acenaphthylene	58 U
99-09-2	3-Nitroaniline	350 U
83-32-9	Acenaphthene	84
51-28-5	2,4-Dinitrophenol	580 U
100-02-7	4-Nitrophenol	290 U
132-64-9	Dibenzofuran	58 U
606-20-2	2,6-Dinitrotoluene	290 U

FORM-1

00124

001353

JMB  
12/15/97

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870T  
LIMS ID: 97-17215  
Matrix: Sediment  
Data Release Authorized: *WW*  
Reported: 10/30/97

Sample No. 9738 4095  
DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/17/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:3  
Percent Moisture: 45.2%  
pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	290 U
84-66-2	Diethylphthalate	58 U
7005-72-3	4-Chlorophenyl-phenylether	58 U
86-73-7	Fluorene	74
100-01-6	4-Nitroaniline	290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580 U
86-30-6	N-Nitrosodiphenylamine	58 U
101-55-3	4-Bromophenyl-phenylether	58 U
118-74-1	Hexachlorobenzene	58 U
87-86-5	Pentachlorophenol	290 U
85-01-8	Phenanthrene	760
86-74-8	Carbazole	140
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	58 U
206-44-0	Fluoranthene	2,200
129-00-0	Pyrene	1,400
85-68-7	Butylbenzylphthalate	58 U
91-94-1	3,3'-Dichlorobenzidine	290 U
56-55-3	Benzo(a)anthracene	510
117-81-7	bis(2-Ethylhexyl)phthalate	210 <i>plus</i>
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	58 U
205-99-2	Benzo(b)fluoranthene	840
207-08-9	Benzo(k)fluoranthene	530
50-32-8	Benzo(a)pyrene	480
193-39-5	Indeno(1,2,3-cd)pyrene	240
53-70-3	Dibenz(a,h)anthracene	95
191-24-2	Benzo(g,h,i)perylene	190

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	42.8%	d5-Phenol	44.2%
2-Fluorobiphenyl	49.6%	2-Fluorophenol	43.4%
d14-p-Terphenyl	63.4%	2,4,6-Tribromophenol	67.2%
d4-1,2-Dichlorobenzene	31.6%	d4-2-Chlorophenol	43.9%

FORM-1

00125

001354

*JMB*  
*21st Jan*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870T  
LIMS ID: 97-17215  
Matrix: Sediment

Sample No: 9738 4095  
DILUTION  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MMW  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.54	SVOA	200 JNB R
2. ---	Unknown_Aromatic_____	18.07	SVOA	240 J
3. 84-65-1	9,10-Anthracenedione_____	18.50	SVOA	280 JN
4. ---	Unknown_C16.H14_PNA_____	18.99	SVOA	190 J
5. ---	Unknown_Aromatic_____	19.43	SVOA	160 J
6. ---	Unknown_____	20.37	SVOA	520 J
7. ---	Benzothiophene_Isomer_____	21.65	SVOA	310 J
8. ---	Unknown_C19.H14_PNA_____	22.95	SVOA	320 J
9. ---	Unknown_Aldehyde_____	24.05	SVOA	1,300 J
10. ---	Unknown_C20.H12_PNA_____	24.64	SVOA	600 J
11. ---	Unknown_Aldehyde_____	25.18	SVOA	670 J
12. ---	Unknown_Sterol_type_____	25.68	SVOA	250 J
13. ---	Unknown_Sterol_type_____	26.24	SVOA	340 J
14. ---	Unknown_Sterol_type_____	26.72	SVOA	260 J
15. ---	Unknown_____	27.22	SVOA	490 J
16. ---	Unknown_Aromatic_____	27.31	SVOA	1,000 J
17. ---	Unknown_____	27.49	SVOA	370 J
18. ---	Unknown_Aromatic_____	27.62	SVOA	980 J
19. ---	Unknown_____	27.98	SVOA	240 J
20. ---	Unknown_Sterol_type_____	28.09	SVOA	370 J

FORM-1-B

00126

001355  
JMB  
12/15/97

ORGANICS ANALYSIS DATA SHEET  
 PSDA Semivolatiles by GC/MS  
 Page 1 of 2  
 Lab Sample ID: T870U  
 LIMS ID: 97-17216  
 Matrix: Sediment  
 Data Release Authorized: MW  
 Reported: 10/30/97



ANALYTICAL  
 RESOURCES  
 INCORPORATED

Sample No: 9738 4096  
 WR-SD-SD009-0000  
 QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00  
 Date Sampled: 09/18/97  
 Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	30
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	28
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acanaphthene	74
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	51
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

001401

JMB  
12/15/97

00127

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870U  
LIMS ID: 97-17216  
Matrix: Sediment  
Data Release Authorized: M  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4096  
WR-SD - SD009-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/16/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 46.0%  
pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	86
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	310
86-74-8	Carbazole	29 U
120-12-7	Anthracene	49
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	340
129-00-0	Pyrene	240
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	100
117-81-7	bis(2-Ethylhexyl)phthalate	180 <i>plus</i>
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	110
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	69
53-70-3	Dibenz(a,h)anthracene	27
191-24-2	Benzo(g,h,i)perylene	48 U

#### Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.8%	d5-Phenol	49.1%
2-Fluorobiphenyl	62.0%	2-Fluorophenol	49.0%
d14-p-Terphenyl	76.8%	2,4,6-Tribromophenol	84.5%
d4-1,2-Dichlorobenzene	44.2%	d4-2-Chlorophenol	50.4%

FORM-1

00128

JMB  
12/15/97

001402



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870U  
LIMS ID: 97-17216  
Matrix: Sediment

Sample No: 9738 4096  
WR-SD-SD009-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MMW/  
Reported: 10/30/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.59	SVOA	150 J N R
2. --	Unknown_Organic_Acid_____	18.17	SVOA	230 J N
3. --	Unknown_____	18.58	SVOA	190 J N
4. --	Unknown_____	18.84	SVOA	110 J N
5. --	Unknown_Aromatic_____	19.48	SVOA	280 J N
6. --	Unknown_Aromatic_____	20.42	SVOA	430 J N
7. --	Unknown_Aldehyde_____	22.88	SVOA	410 J N
8. --	Unknown_Aromatic_____	23.18	SVOA	440 J N
9. --	Unknown_____	23.33	SVOA	370 J N
10. --	Unknown_Aldehyde_____	24.11	SVOA	1,600 J N
11. --	Unknown_Aldehyde_____	25.22	SVOA	910 J N
12. --	Unknown_Sterol_type_____	25.73	SVOA	340 J N
13. --	Unknown_Sterol_type_____	26.00	SVOA	310 J N
14. --	Unknown_____	26.20	SVOA	330 J N
15. --	Unknown_____	26.30	SVOA	470 J N
16. --	Unknown_Aromatic_____	27.38	SVOA	1,400 J N
17. --	Unknown_____	27.56	SVOA	690 J N
18. --	Unknown_Sterol_type_____	27.71	SVOA	1,300 J N
19. --	Unknown_____	28.06	SVOA	310 J N
20. --	Unknown_Sterol_type_____	28.17	SVOA	660 J N

FORM-1-B

00129

JMB  
12/15/97

001403

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 1 of 2  
 Lab Sample ID: T870V  
 LIMS ID: 97-17217  
 Matrix: Sediment  
 Data Release Authorized: MMW  
 Reported: 10/30/97



ANALYTICAL  
 RESOURCES  
 INCORPORATED

Sample No: 9738 4097

WR-SD- SD 010-0000

QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
 Date Received: 09/20/97

Date extracted: 10/01/97  
 Date analyzed: 10/28/97  
 Instrument: nt1  
 GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 44.2%  
 pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U J
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U J
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U J
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U J
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U J
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U J
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00130

MB  
 12/5/97  
 001452

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870V  
LIMS ID: 97-17217  
Matrix: Sediment  
Data Release Authorized: *MM*  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4097  
WR-SD - SD010-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/28/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 44.2%  
pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	36
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	69
129-00-0	Pyrene	67
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U <i>J</i>
56-55-3	Benzo(a)anthracene	35
117-81-7	bis(2-Ethylhexyl)phthalate	89 <i>XUJ</i>
218-01-9	Chrysene	50
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	41
207-08-9	Benzo(k)fluoranthene	40
50-32-8	Benzo(a)pyrene	46
193-39-5	Indeno(1,2,3-cd)pyrene	31
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	38

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	47.4%	d5-Phenol	53.0%
2-Fluorobiphenyl	52.8%	2-Fluorophenol	50.4%
d14-p-Terphenyl	64.4%	2,4,6-Tribromophenol	69.6%
d4-1,2-Dichlorobenzene	42.8%	d4-2-Chlorophenol	49.3%

FORM-1

00131

*JMB*  
*12/15/97*  
~~001453~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870V  
LIMS ID: 97-17217  
Matrix: Sediment

Sample No: 9738 4097  
WR-SD- SD010-000C

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *Wm*  
Reported: 10/30/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	7.05	SVOA	190 JNB R
2. --	Unknown_Alcohol	19.99	SVOA	85 JN
3. --	Unknown	20.08	SVOA	110 JN
4. --	Unknown_Aromatic	21.02	SVOA	240 JN
5. --	Unknown_Aldehyde	23.51	SVOA	160 JN
6. --	Unknown_Aromatic	23.77	SVOA	350 JN
7. --	Unknown_Aldehyde	24.72	SVOA	640 J N
8. --	Unknown_Aldehyde	25.85	SVOA	220 J N
9. --	Unknown_Cycloalkane	26.19	SVOA	160 J N
10. --	Unknown_Aromatic	26.36	SVOA	190 J N
11. --	Unknown_Sterol_type	26.59	SVOA	480 J N
12. --	Unknown_Sterol_type	26.86	SVOA	240 J N
13. --	Unknown_Sterol_type	27.31	SVOA	260 J N
14. --	Unknown_Sterol_type	27.70	SVOA	1,300 J N
15. --	Unknown_Aromatic	27.86	SVOA	520 J N
16. --	Unknown_Aromatic	28.03	SVOA	540 J N
17. --	Unknown	28.15	SVOA	860 J N
18. --	Unknown	28.31	SVOA	370 J N
19. --	Unknown	28.47	SVOA	170 J N
20. --	Unknown_Sterol_type	28.58	SVOA	450 J N

FORM-1-B

00132

JMB  
12/15/97

001454



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870W

LIMS ID: 97-17218

Matrix: Sediment

Data Release Authorized: WWW

Reported: 10/30/97

Sample No: 9738 4098

WR-SD-SD 012-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 26.5%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	13 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00133

001497

JMB  
12/15/97

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870W  
LIMS ID: 97-17218  
Matrix: Sediment  
Data Release Authorized: *WW*  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4098  
WR-SD- SD012E0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97  
Date analyzed: 10/28/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 26.5%  
pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	44
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	110
129-00-0	Pyrene	110
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U <i>J</i>
56-55-3	Benzo(a)anthracene	86
117-81-7	bis(2-Ethylhexyl)phthalate	70 <i>J</i> U <i>S</i>
218-01-9	Chrysene	110
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	90
207-08-9	Benzo(k)fluoranthene	100
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	72
53-70-3	Dibenz(a,h)anthracene	31
191-24-2	Benzo(g,h,i)perylene	80

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.6%	d5-Phenol	54.5%
2-Fluorobiphenyl	53.9%	2-Fluorophenol	52.6%
d14-p-Terphenyl	63.4%	2,4,6-Tribromophenol	69.2%
d4-1,2-Dichlorobenzene	45.2%	d4-2-Chlorophenol	50.9%

FORM-1

00134

001498

*JMB*  
*12/15/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870W  
LIMS ID: 97-17218  
Matrix: Sediment

Sample No: 9738 4098  
WR-SD-SD01Z-0000C

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MWB*  
Reported: 10/30/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	7.04	SVOA	280 JNB JN
2. --	Unknown_Alcohol_____	14.28	SVOA	200 JN
3. 7342-38-3	Stannane,_chlorotris(2-me	16.07	SVOA	3,400 JN
4. 1461-25-2	Stannane,_tetrabutyl-	16.12	SVOA	250 JN
5. --	Unknown_Stannane_____	16.51	SVOA	390 JN
6. --	Unknown_Acid_Ester_____	18.45	SVOA	60 JN
7. --	Unknown_PNA_____	18.76	SVOA	78 JN
8. --	Unknown_Alcohol_____	19.98	SVOA	92 JN
9. --	Unknown_Aromatic_____	20.09	SVOA	95 JN
10. --	Unknown_Aromatic_____	21.02	SVOA	160 JN
11. --	Unknown_____	23.93	SVOA	640 J N
12. --	Unknown_Aldehyde_____	24.71	SVOA	190 J N
13. --	Unknown_Aldehyde_____	25.84	SVOA	93 J N
14. --	Unknown_Sterol_type_____	26.59	SVOA	150 J N
15. --	Unknown_Aromatic_____	27.85	SVOA	140 J N
16. --	Unknown_____	28.03	SVOA	170 J N
17. --	Unknown_Aromatic_____	28.14	SVOA	320 J N
18. --	Unknown_____	28.30	SVOA	160 J N
19. --	Unknown_Sterol_type_____	28.57	SVOA	200 J N
20. --	Unknown_____	29.11	SVOA	58 J N

FORM-1-B

00135

*JMB*  
*12/15/97*

~~001435~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870X

LIMS ID: 97-17219

Matrix: Sediment

Data Release Authorized: MMV

Reported: 10/30/97

Sample No: 9738 4099

WR-SD-SD013-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.3%

pH: 6.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00136

JMB  
12/15/97  
001543

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T870X  
LIMS ID: 97-17219  
Matrix: Sediment  
Data Release Authorized: *MW*  
Reported: 10/30/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4099

WR-SD- SD013-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 42.3%  
pH: 6.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	68
86-74-8	Carbazole	19
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	140
129-00-0	Pyrene	130
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	72
117-81-7	bis(2-Ethylhexyl)phthalate	1,200
218-01-9	Chrysene	96
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	84
207-08-9	Benzo(k)fluoranthene	100
50-32-8	Benzo(a)pyrene	100
193-39-5	Indeno(1,2,3-cd)pyrene	61
53-70-3	Dibenz(a,h)anthracene	25
191-24-2	Benzo(g,h,i)perylene	62

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	59.2%	d5-Phenol	55.7%
2-Fluorobiphenyl	64.6%	2-Fluorophenol	57.6%
d14-p-Terphenyl	75.2%	2,4,6-Tribromophenol	80.6%
d4-1,2-Dichlorobenzene	53.7%	d4-2-Chlorophenol	57.8%

FORM-1

00137

001544

JMB  
12/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870X  
LIMS ID: 97-17219  
Matrix: Sediment

Sample No: 9738 4099  
WR-SD-SD013-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: MMW  
Reported: 10/30/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.58	SVOA	140 JNB R
2. --	Unknown_Ketone	14.53	SVOA	62 JN
3. --	Unknown_Acid_Ester	17.65	SVOA	64 JN
4. --	Unknown_Organic_Acid	18.15	SVOA	74 J N
5. --	Unknown	18.57	SVOA	230 J N
6. --	Unknown_Aromatic	19.47	SVOA	150 J N
7. --	Unknown_Aromatic	20.41	SVOA	260 J N
8. --	Unknown_Aldehyde	22.89	SVOA	240 J N
9. --	Unknown	23.33	SVOA	160 J N
10. --	Unknown_Aldehyde	24.10	SVOA	970 J N
11. --	Unknown_Aldehyde	25.23	SVOA	400 J N
12. --	Unknown_Sterol_type	25.73	SVOA	120 J N
13. --	Unknown_Sterol_type	26.00	SVOA	250 J N
14. --	Unknown_Aldehyde	26.30	SVOA	250 J N
15. --	Unknown_Sterol_type	26.78	SVOA	140 J N
16. --	Unknown_Aromatic	27.37	SVOA	910 J N
17. --	Unknown	27.56	SVOA	270 J N
18. --	Unknown_Sterol_type	27.69	SVOA	830 J N
19. --	Unknown	28.06	SVOA	200 J N
20. --	Unknown_Sterol_type	28.17	SVOA	300 J N

FORM-1-B

00138

001345

JMB  
12/15/97

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870Y

LIMS ID: 97-17220

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4100

WR-SD-SD014-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.3%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

JMB  
12/15/97

001588

00139

ORGANICS ANALYSIS DATA SHEET  
 PSDDA Semivolatiles by GC/MS  
 Page 2 of 2  
 Lab Sample ID: T870Y  
 LIMS ID: 97-17220  
 Matrix: Sediment  
 Data Release Authorized: MW  
 Reported: 10/30/97



ANALYTICAL  
 RESOURCES  
 INCORPORATED

Sample No: 9738 4100

WR-SD- SD014-0000

QC Report No: T870-Roy F. Weston  
 Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
 Date Received: 09/20/97

Date extracted: 10/01/97  
 Date analyzed: 10/16/97  
 Instrument: nt1  
 GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt  
 Final Extract Volume: 1.0 mL  
 Dilution Factor: 1:1  
 Percent Moisture: 42.3%  
 pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U J
85-01-8	Phenanthrene	80
86-74-8	Carbazole	24 J
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U J
206-44-0	Fluoranthene	170
129-00-0	Pyrene	160
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	89
117-81-7	bis(2-Ethylhexyl)phthalate	110 J U J
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	110
207-08-9	Benzo(k)fluoranthene	140
50-32-8	Benzo(a)pyrene	130
193-39-5	Indeno(1,2,3-cd)pyrene	82
53-70-3	Dibenz(a,h)anthracene	33
191-24-2	Benzo(g,h,i)perylene	80 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.8%	d5-Phenol	41.7%
2-Fluorobiphenyl	55.2%	2-Fluorophenol	46.2%
d14-p-Terphenyl	71.4%	2,4,6-Tribromophenol	72.0%
d4-1,2-Dichlorobenzene	44.3%	d4-2-Chlorophenol	45.7%

FORM-1

JMB  
 12/15/97

-001589-

00140



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T870Y  
LIMS ID: 97-17220  
Matrix: Sediment

Sample No: 9738 4100  
WR-SD- SDO14-0000  
QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MWJ*  
Reported: 10/30/97

Date Analyzed: 10/16/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Acid_Ester	17.65	SVOA	76 J N
2. --	Unknown_Organic_Acid	18.14	SVOA	69 J N
3. --	Unknown	18.34	SVOA	70 J N
4. --	Unknown	18.57	SVOA	150 J N
5. --	Unknown	18.84	SVOA	100 J N
6. --	Unknown	19.02	SVOA	86 J N
7. --	Unknown_Aromatic	19.48	SVOA	160 J N
8. --	Unknown_Aromatic	20.42	SVOA	290 J N
9. --	Unknown_Aldehyde	22.87	SVOA	160 J N
10. --	Unknown_Aldehyde	24.10	SVOA	660 J N
11. --	Unknown_Aldehyde	25.22	SVOA	280 J N
12. --	Unknown_Sterol_type	25.72	SVOA	90 J N
13. --	Unknown_Sterol_type	25.99	SVOA	220 J N
14. --	Unknown_Sterol_type	26.29	SVOA	180 J N
15. --	Unknown_Sterol_type	26.77	SVOA	110 J N
16. --	Unknown_Aromatic	27.37	SVOA	560 J N
17. --	Unknown	27.55	SVOA	220 J N
18. --	Unknown	27.68	SVOA	580 J N
19. --	Unknown	28.05	SVOA	150 J N
20. --	Unknown_Sterol_type	28.16	SVOA	220 J N

FORM-1-B

00141

001500

*JMB*  
*12/15/97*

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T870Z

LIMS ID: 97-17221

Matrix: Sediment

Data Release Authorized: MM

Reported: 10/30/97



Sample No: 9738 4101

WR-SD-SD034-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.0%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	26
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	110
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	38
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00142

JMB  
12/15/97

001633

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T870Z

LIMS ID: 97-17221

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/30/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4101

WR-SD- SD034-0000

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.0%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorane	74
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	710
86-74-8	Carbazole	340
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,400
129-00-0	Pyrene	1,000
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	720
117-81-7	bis(2-Ethylhexyl)phthalate	110
218-01-9	Chrysene	930
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,100
207-08-9	Benzo(k)fluoranthene	790
50-32-8	Benzo(a)pyrene	1,000
193-39-5	Indeno(1,2,3-cd)pyrene	620
53-70-3	Dibenz(a,h)anthracene	270
191-24-2	Benzo(g,h,i)perylene	540

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.0%	d5-Phenol	50.3%
2-Fluorobiphenyl	65.0%	2-Fluorophenol	47.5%
d14-p-Terphenyl	82.8%	2,4,6-Tribromophenol	88.9%
d4-1,2-Dichlorobenzene	38.1%	d4-2-Chlorophenol	49.8%

FORM-1

00143

001634

JMB  
2/15/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4101  
WR-SD- SDO34-0000  
Lab Sample ID: T870Z QC Report No: T870-Roy F. Weston  
LIMS ID: 97-17221 Project: 04000-019-036-5100-00  
Matrix: Sediment  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Data Release Authorized: *MMW*  
Reported: 10/30/97

Date Analyzed: 10/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown _____	18.11	SVOA	190 J N
2. --	Unknown _____	18.57	SVOA	210 J N
3. --	Unknown_Aromatic _____	19.48	SVOA	380 J N
4. --	Unknown_Aromatic _____	20.42	SVOA	940 J N
5. --	Unknown_C17.H12_PNA _____	20.59	SVOA	270 J N
6. --	Benzothiophene_Isomer _____	21.69	SVOA	320 J N
7. --	Unknown_Aromatic _____	23.19	SVOA	310 J N
8. --	Unknown _____	23.33	SVOA	340 J N
9. --	Unknown_Aldehyde _____	24.10	SVOA	1,100 J N
10. --	Unknown_C20.H12_PNA _____	24.71	SVOA	620 J N
11. --	Unknown_Aldehyde _____	25.23	SVOA	620 J N
12. --	Unknown_Sterol_type _____	25.74	SVOA	410 J N
13. --	Unknown_Sterol_type _____	26.01	SVOA	590 J N
14. --	Unknown_Sterol_type _____	26.30	SVOA	410 J N
15. --	Unknown_PNA _____	26.79	SVOA	260 J N
16. --	Unknown_Aromatic _____	27.38	SVOA	870 J N
17. --	Unknown _____	27.57	SVOA	440 J N
18. --	Unknown_Sterol_type _____	27.70	SVOA	1,100 J N
19. --	Unknown _____	28.06	SVOA	270 J N
20. --	Unknown_Sterol_type _____	28.18	SVOA	450 J N

JMB  
12/15/97

001635

00144



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4076

WR-SD- SD035-0000

Lab Sample ID: T870D

QC Report No: T870-Roy F. Weston

LIMS ID: 97-17199

Project: 04000-019-036-5100-00

Matrix: Sediment

Data Release Authorized: *RK*

Date Sampled: 09/18/97

Reported: 11/05/97

Date Received: 09/20/97

Date extracted: 10/01/97

Sample Amount: 52.7 g-dry-wt

Date analyzed: 10/16/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 44.6%

Sulfur Cleanup: YES

pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.95 U
319-85-7	beta-BHC	0.95 U
319-86-8	delta-BHC	3.0 <i>UI</i>
58-89-9	gamma-BHC (Lindane)	0.95 U
76-44-8	Heptachlor	0.95 U
309-00-2	Aldrin	0.95 U
1024-57-3	Heptachlor Epoxide	0.95 U
959-98-8	Endosulfan I	0.95 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.4 J
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.1 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.4 J
72-43-5	Methoxychlor	9.5 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.95 U
5103-71-9	alpha Chlordane	0.95 U
8001-35-2	Toxaphene	95 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 54.5%  
Tetrachloromethylene 39.8%

FORM-1

*JMB*  
*12/15/97*  
~~002200~~

00145



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4086

WR-SD- SD 021-0000

Lab Sample ID: T870M

QC Report No: T870-Roy F. Weston

LIMS ID: 97-17208

Project: 04000-019-036-5100-00

Matrix: Sediment

Data Release Authorized:

Date Sampled: 09/18/97

Reported: 11/05/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 49.4%

pH: 6.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U
319-85-7	beta-BHC	0.99 U
319-86-8	delta-BHC	1.6 XUL
58-89-9	gamma-BHC (Lindane)	0.99 U
76-44-8	Heptachlor	0.99 U
309-00-2	Aldrin	0.99 U
1024-57-3	Heptachlor Epoxide	0.99 U
959-98-8	Endosulfan I	0.99 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.4
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	3.4
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	4.6
72-43-5	Methoxychlor	9.9 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.99 U
5103-71-9	alpha Chlordane	0.99 U
8001-35-2	Toxaphene	99 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 52.8%  
Tetrachlorometaxylen 36.5%

FORM-1

00146

002207

JMB  
(2/15/94)



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T870W

LIMS ID: 97-17218

Matrix: Sediment

Data Release Authorized: *Alysha*

Reported: 11/05/97

Sample No: 9738 4098

WR-SD-SD01Z-0006

QC Report No: T870-Roy F. Weston

Project: 04000-019-036-5100-00

Date Sampled: 09/18/97

Date Received: 09/20/97

Date extracted: 10/01/97

Date analyzed: 10/16/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 26.5%

pH: 7.0

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.97 U
319-85-7	beta-BHC	0.97 U
319-86-8	delta-BHC	1.6 <i>uL</i>
58-89-9	gamma-BHC (Lindane)	0.97 U
76-44-8	Heptachlor	0.97 U
309-00-2	Aldrin	0.97 U
1024-57-3	Heptachlor Epoxide	0.97 U
959-98-8	Endosulfan I	0.97 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.9 U
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.4 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.9 U
72-43-5	Methoxychlor	9.7 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.97 U
5103-71-9	alpha Chlordane	0.97 U
8001-35-2	Toxaphene	97 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 60.5%  
Tetrachlorometaxylene 51.2%

FORM-1

00147

JMB  
12/15/94  
002214



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4091

WR-SD- SD004-6000

Lab Sample ID: T870Q

QC Report No: T870-Roy F. Weston

LIMS ID: 97-20485

Project: 04000-019-036-5100-00

Matrix: Sediment

Data Release Authorized: *MJH*

Date Sampled: 09/18/97

Reported: 11/05/97

Date Received: 09/20/97

Date extracted: 10/21/97

Date analyzed: 10/28/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 53.4 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 23.8%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.94 U J
319-85-7	beta-BHC	0.94 U J
319-86-8	delta-BHC	0.94 U J
58-89-9	gamma-BHC (Lindane)	0.94 U J
76-44-8	Heptachlor	0.94 U J
309-00-2	Aldrin	0.94 U J
1024-57-3	Heptachlor Epoxide	0.94 U J
959-98-8	Endosulfan I	0.94 U J
60-57-1	Dieldrin	1.9 U J
72-55-9	4,4'-DDE	0.84 J
72-20-8	Endrin	1.9 U J
33213-65-9	Endosulfan II	1.9 U J
72-54-8	4,4'-DDD	1.1 J
1031-07-8	Endosulfan Sulfate	1.9 U J
50-29-3	4,4'-DDT	1.0 J
72-43-5	Methoxychlor	9.4 U J
53494-70-5	Endrin Ketone	1.9 U J
7421-93-4	Endrin Aldehyde	1.9 U J
57-74-9	gamma Chlordane	0.94 U J
5103-71-9	alpha Chlordane	0.94 U J
8001-35-2	Toxaphene	94 U J
12674-11-2	Aroclor 1016	19 U J
53469-21-9	Aroclor 1242	19 U J
12672-29-6	Aroclor 1248	19 U J
11097-69-1	Aroclor 1254	19 U J
11096-82-5	Aroclor 1260	19 U J
11104-28-2	Aroclor 1221	37 U J
11141-16-5	Aroclor 1232	19 U J

Pesticide Surrogate Recovery

Decachlorobiphenyl 58.8%  
Tetrachlorometaxylene 74.5%

FORM-1

00148

JMB  
12/15/97  
002222



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T870N-RE  
LIMS ID: 97-17209  
Matrix: Sediment  
Data Release Authorized: *Roger*  
Reported: 11/12/97

Sample No: 9738 4088

REANALYSIS

WR-SD- SD 021-1000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00  
Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 11/05/97  
Date analyzed: 11/11/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 50.8 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 46.7%  
pH: 6.7

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 ug
319-85-7	beta-BHC	0.98 ug
319-86-8	delta-BHC	0.98 ug
58-89-9	gamma-BHC (Lindane)	0.98 ug
76-44-8	Heptachlor	0.98 ug
309-00-2	Aldrin	0.98 ug
1024-57-3	Heptachlor Epoxide	0.98 ug
959-98-8	Endosulfan I	0.98 ug
60-57-1	Dieldrin	2.0 ug
72-55-9	4,4'-DDE	2.0 ug
72-20-8	Endrin	2.0 ug
33213-65-9	Endosulfan II	2.0 ug
72-54-8	4,4'-DDD	2.0 ug
1031-07-8	Endosulfan Sulfate	2.0 ug
50-29-3	4,4'-DDT	2.0 ug
72-43-5	Methoxychlor	9.8 ug
53494-70-5	Endrin Ketone	2.0 ug
7421-93-4	Endrin Aldehyde	2.0 ug
57-74-9	gamma Chlordane	0.98 ug
5103-71-9	alpha Chlordane	0.98 ug
8001-35-2	Toxaphene	98 ug
12674-11-2	Aroclor 1016	20 ug
53469-21-9	Aroclor 1242	20 ug
12672-29-6	Aroclor 1248	20 ug
11097-69-1	Aroclor 1254	20 ug
11096-82-5	Aroclor 1260	20 ug
11104-28-2	Aroclor 1221	39 ug
11141-16-5	Aroclor 1232	20 ug

Pesticide Surrogate Recovery

Decachlorobiphenyl 41.0%  
Tetrachloromethylene 46.5%

FORM-1

00149

002229 *MB*  
*2/15/99*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T870Z-RE  
LIMS ID: 97-17221  
Matrix: Sediment  
Data Release Authorized: *RH*  
Reported: 11/12/97

Sample No: 9738 4101

REANALYSIS

WR-SD- SD034-0000

QC Report No: T870-Roy F. Weston  
Project: 04000-019-036-5100-00

Date Sampled: 09/18/97  
Date Received: 09/20/97

Date extracted: 11/05/97  
Date analyzed: 11/11/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 51.5 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 43.0%  
pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.97 UJ
319-85-7	beta-BHC	0.97 UJ
319-86-8	delta-BHC	0.97 UJ
58-89-9	gamma-BHC (Lindane)	0.97 UJ
76-44-8	Heptachlor	0.97 UJ
309-00-2	Aldrin	0.97 UJ
1024-57-3	Heptachlor Epoxide	0.97 UJ
959-98-8	Endosulfan I	0.97 UJ
60-57-1	Dieldrin	1.9 UJ
72-55-9	4,4'-DDE	1.2 J
72-20-8	Endrin	1.9 UJ
33213-65-9	Endosulfan II	1.9 UJ
72-54-8	4,4'-DDD	1.9 UJ
1031-07-8	Endosulfan Sulfate	1.9 UJ
50-29-3	4,4'-DDT	1.9 UJ
72-43-5	Methoxychlor	9.7 UJ
53494-70-5	Endrin Ketone	3.4 XWL
7421-93-4	Endrin Aldehyde	1.9 UJ
57-74-9	gamma Chlordane	0.97 UJ
5103-71-9	alpha Chlordane	0.97 UJ
8001-35-2	Toxaphene	97 UJ
12674-11-2	Aroclor 1016	19 UJ
53469-21-9	Aroclor 1242	19 UJ
12672-29-6	Aroclor 1248	19 UJ
11097-69-1	Aroclor 1254	19 UJ
11096-82-5	Aroclor 1260	19 UJ
11104-28-2	Aroclor 1221	39 UJ
11141-16-5	Aroclor 1232	19 UJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 42.8%  
Tetrachloromethylene 49.2%

FORM-1

002236 QMB  
12/15/97

00150



Roy F. Weston, Inc.  
Suite 5700  
700 5th Avenue  
Seattle, Washington 98104-5057  
206-521-7600 • Fax 206-521-7601

## MEMORANDUM

DATE: 28 January 1998

TO: John Meyer, WAM, U.S. EPA, Region X

FROM: Jennifer M. Baier, Environmental Chemist, WESTON, Seattle  
*JMB*  
*Rnm* Roger McGinnis, Senior Environmental Chemist, WESTON, Seattle

SUBJECT: Validation of Organics (semivolatiles, pesticides, and PCBs)  
SDG No: T914  
Site: Willamette River

WORK ASSIGNMENT NO: 46-23-0JZZ

DOC. CONTROL NO.: 4000-019-036-AAAZ

WORK ORDER NO.: 4000-019-036-5200-00

cc: Bruce Woods, RAP-WAM, U.S. EPA, Region X  
Karen Stash, Project Manager, WESTON, Seattle (memo only)

The quality assurance review of 55 samples, SDG T914, collected from the Willamette River has been completed. The sediment samples were analyzed at low level for semivolatiles, pesticides and PCBs by Analytical Resources, Inc. The samples were numbered:

97384103	97384104	97384105	97384106	97384108
97384109	97384901	97384903	97384904	97384905
97384906	97384907	97384908	97384909	97384910
97384911	97384912	97384913	97384915	97384916
97384917	97384919	97384921	97384922	97384924
97384925	97384926	97384927	97384928	97384929
97384930	97384933	97384934	97384935	97384937
97384938	97384939	97384940	97384941	97384943
97384944	97384945	97384947	97384950	97384952
97384954	97384956	97384958	97384960	97384961
97384963	97384964	97384965	97384966	97384967

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### Data Qualifications

The following comments refer to the laboratory performance in meeting the quality control criteria described in the technical specifications of the laboratory subcontract. The review follows the format described in the *National Functional Guidelines for Organic Data Review* (EPA OSWER Directive 9240.1-05, February 1994).

#### 1. Timeliness

All samples met holding time criteria except the following:

Sample Number	Fraction	Sampling Date	Extraction Date	No. of Days	Holding Time
97384103	BNAs	9/19/97	10/10/97	21	14 days
97384104	BNAs	9/19/97	10/10/97	21	14 days
97384105	BNAs	9/19/97	10/10/97	21	14 days
97384106	BNAs	9/19/97	10/10/97	21	14 days
97384108	BNAs	9/19/97	10/10/97	21	14 days
97384109	BNAs	9/19/97	10/10/97	21	14 days
97384901	BNAs	9/19/97	10/10/97	21	14 days
97384903	BNAs	9/19/97	10/10/97	21	14 days
97384904	BNAs	9/19/97	10/10/97	21	14 days
97384905	BNAs	9/19/97	10/10/97	21	14 days
97384906	BNAs	9/19/97	10/10/97	21	14 days
97384907	BNAs	9/19/97	10/10/97	21	14 days
97384908	BNAs	9/19/97	10/10/97	21	14 days
97384913	BNAs	9/19/97	10/10/97	21	14 days
97384915	BNAs	9/19/97	10/10/97	21	14 days
97384916	BNAs	9/19/97	10/10/97	21	14 days
97384917	BNAs	9/19/97	10/10/97	21	14 days
97384919	BNAs	9/20/97	10/10/97	20	14 days
97384921	BNAs	9/20/97	10/10/97	20	14 days
97384922	BNAs	9/20/97	10/10/97	20	14 days
97384924	BNAs	9/20/97	10/10/97	20	14 days
97384925	BNAs	9/20/97	10/10/97	20	14 days

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Sample Number	Fraction	Sampling Date	Extraction Date	No. of Days	Holding Time
97384926	BNAs	9/20/97	10/10/97	20	14 days
97384927	BNAs	9/20/97	10/10/97	20	14 days
97384928	BNAs	9/20/97	10/10/97	20	14 days
97384929	BNAs	9/20/97	10/10/97	20	14 days
97384930	BNAs	9/20/97	10/10/97	20	14 days
97384933	BNAs	9/20/97	10/10/97	20	14 days
97384934	BNAs	9/20/97	10/10/97	20	14 days
97384935	BNAs	9/20/97	10/10/97	20	14 days
97384937	BNAs	9/20/97	10/10/97	20	14 days
97384938	BNAs	9/20/97	10/10/97	20	14 days
97384939	BNAs	9/20/97	10/10/97	20	14 days
97384940	BNAs	9/20/97	10/10/97	20	14 days
97384941	BNAs	9/20/97	10/10/97	20	14 days
97384943	BNAs	9/20/97	10/10/97	20	14 days
97384944	BNAs	9/20/97	10/10/97	20	14 days
97384945	BNAs	9/20/97	10/10/97	20	14 days
97384947	BNAs	9/21/97	10/10/97	19	14 days
97384950	BNAs	9/21/97	10/10/97	19	14 days
97384952	BNAs	9/21/97	10/10/97	19	14 days
97384954	BNAs	9/21/97	10/10/97	19	14 days
97384956	BNAs	9/21/97	10/10/97	19	14 days
97384958	BNAs	9/21/97	10/10/97	19	14 days
97384960	BNAs	9/21/97	10/10/97	19	14 days
97384961	BNAs	9/21/97	11/7/97	47	14 days
97384963	BNAs	9/21/97	10/10/97	19	14 days
97384964	BNAs	9/21/97	10/10/97	19	14 days
97384965	BNAs	9/21/97	10/10/97	19	14 days
97384966	BNAs	9/21/97	10/10/97	19	14 days
97384967	BNAs	9/21/97	10/10/97	19	14 days
97384106	Pest/PCBs	9/19/97	10/10/97	21	14 days
97384913	Pest/PCBs	9/19/97	10/10/97	21	14 days

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Sample Number	Fraction	Sampling Date	Extraction Date	No. of Days	Holding Time
97384915	Pest/PCBs	9/19/97	10/10/97	21	14 days
97384917	Pest/PCBs	9/19/97	10/10/97	21	14 days
97384919	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384922	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384926	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384930	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384941	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384943	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384944	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384945	Pest/PCBs	9/20/97	10/10/97	20	14 days
97384947	Pest/PCBs	9/21/97	10/10/97	19	14 days
97384950	Pest/PCBs	9/21/97	10/24/97	33	14 days

Samples were stored at -18°C upon receipt by the laboratory and thus, according to PSEP protocols, holding times may be extended to one year. No data were qualified.

2. GC/MS Instrument Performance Check

All tuning check compound mass abundances and ratios were within required limits.

3. Initial Calibration

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with average relative response factors  $\overline{RRF}$  greater than or equal to 0.05.

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with  $\overline{RRF}$  percent relative standard deviations (percent RSD) less than 30 percent except:

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Date	Fraction	Compound	Percent RSD	Associated Samples
2/27/97	BNA	Benzyl alcohol	47.2	97384909, 97384910, 97384911, 97384912, 97384103, 97384104, 97384105, 97384106, 97384108, 97384109, 97384901, 97384903, 97384904, 97384905, 97384906,
		2,4-Dinitrophenol	52.2	97384907, 97384908, 97384913, 97384915, 97384916, 97384901DL, 97384906DL, 97384917, 97384919, 97384921, 97384922, 97384924, 97384925, 97384926, 97384927, 97384928, 97384929, 97384930, 97384934, 97384933, 97384933DL, 97384934DL, 97384941,
		Pentachlorophenol	21	97384943, 97384944, 97384945, 97384950, 97384952, 97384937, 97384954, 97384956, 97384958, 97384960, 97384963, 97384964, 97384965, 97384966, 97384967, 97384939, 97384940, 973849639DL, 97384940DL, 97384947, 97384935DL, 973849637DL, 97384938DL
11/7/97	BNA	2,4-Dinitrophenol	38.9	97384941DL, 97384943DL, 97384944DL, 97384945DL, 97384947DL, 97384935, 97384938, 97384961

Results and quantitation limits for compounds associated with the above calibrations and samples have been qualified as estimated (J) as a high RSD is indicative of calibration nonlinearity.

#### 4. Continuing Calibrations

All target compound list (TCL) analytes were within required limits for the continuing calibrations with average relative response factors  $\overline{RRF}$  greater than 0.05 except:

Date	Time	Fraction	Compound	$\overline{RRF}$	Associated Samples
10/23/97	11:54	BNA	2,4-Dinitrophenol	0.043	97384105, 97384106, 97384108, 97384109, 97384901, 97384903, 97384904, 97384905, 97384906, 97384907, 97384908, 97384913, 97384915, 97384916
11/10/97	14:55	BNA	2,4-Dinitrophenol	0.034	97384961

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J). Quantitation limits for all undetected compounds with  $\overline{RRF}$  below 0.05 have been rejected.

All target compound list (TCL) analytes were within required limits for the continuing calibration with  $\overline{RRF}$  percent differences less than 25 percent except:

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Date	Fraction	Compound	% Diff	Associated Samples
10/10/97	1115	N-Nitroso-di-n-propylamine	30.8	97384909, 97384910
		Bis(2-Chloroethoxy)methane	34.1	
		4-Chloroaniline	26.4	
		Hexachlorocyclopentadiene	31.2	
		3-Nitroaniline	41.8	
		3,3'-Dichlorobenzidine	37.8	
		Di-n-octylphthalate	35.7	
		Benzo(g,h,i)perylene	-25.9	
10/15/97	1118	Benzyl alcohol	-29.2	97384911, 97384912
		Hexachlorocyclopentadiene	48.6	
		4-Nitroaniline	-50	
		Di-n-butylphthalate	-32	
10/22/97	1223	Benzyl alcohol	-46.6	97384103, 97384104
		2,2'-oxybis(1-chloropropane)	-35.3	
		Hexachlorocyclopentadiene	72.5	
		2,4-Dinitrophenol	80.6	
		4-Nitrophenol	-49.5	
		Diethylphthalate	-25.8	
		4,6-Dinitro-2-methylphenol	72.1	
		N-Nitrosodiphenylamine	26.1	
		Pentachlorophenol	29.9	
		Carbazole	37.3	
		2,4,6-Tribromophenol (surr)	-39.4	
		Bis(2-Chloroethyl)ether	-25.8	97384105, 97384106, 97384108,
10/23/97	1154	Benzyl alcohol	-52.9	97384109, 97384901, 97384903,
		2,2'-oxybis(1-Chloropropane)	-33.4	97384904, 97384905, 97384906,
		4-Chloroaniline	33.8	97384907, 97384908, 97384913,
		Hexachlorocyclopentadiene	64.4	97384915, 97384916
		3-Nitroaniline	66.3	
		2,4-Dinitrophenol	56.1	
		4-Nitroaniline	48.4	

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## QA Case T914 (Organics)

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Date	Fraction	Compound	% Diff	Associated Samples
10/28/97	1041	4,6-Dinitro-2-methylphenol	45.7	
		Pentachlorophenol	36	
		Carbazole	71.5	
		Benzyl alcohol	-45.7	97384901DL, 97384906DL, 97384917,
		2,2'-oxybis(1-Chloropropane)	-34	97384919, 97384921, 97384922,
		4-Chloroaniline	52.3	97384924, 97384925, 97384926,
		Hexachlorocyclopentadiene	57.5	97384927, 97384928, 97384929,
		3-Nitroaniline	68.7	97384930
		4-Nitroaniline	33	
		Pentachlorophenol	38.8	
10/29/97	1333	Carbazole	63.8	
		3,3'-Dichlorobenzidine	40.9	
		Benzyl alcohol	-37.4	97384933, 97384934, 97384933DL,
		Hexachlorocyclopentadiene	53.4	97384934DL, 97384941, 97384943,
		Pentachlorophenol	35.4	97384944, 97384945, 97384950,
10/31/97	0026	Carbazole	29.1	97384952, 97384937
		Bis(2-Chloroethyl)ether	-35.3	97384954, 97384956, 97384958,
		Benzyl alcohol	-37	97384960, 97384963, 97384964,
		2,2'-oxybis(1-Chloropropane)	-28.8	97384965, 97384966, 97384967,
		4-Chloroaniline	30.6	97384939, 97384940
		Hexachlorocyclopentadiene	72.1	
		3-Nitroaniline	63	
		2,4-Dinitrophenol	42.8	
		4-Nitroaniline	58.2	
		N-Nitrosodiphenylamine	52.4	
		Pentachlorophenol	26.5	
11/3/97	1024	Carbazole	57.5	
		3,3'-Dichlorobenzidine	35.2	
		Benzyl alcohol	-42.6	97384939DL, 97384940DL, 97384947,
		2,2'-oxybis(1-Chloropropane)	-45.4	97384935DL, 97384937DL, 97384938DL
		Benzoic acid	-25.8	

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Date	Fraction	Compound	% Diff	Associated Samples
11/10/97	1455	4-Chloroaniline	60	
		Hexachlorocyclopentadiene	68.4	
		3-Nitroaniline	79.5	
		4-Nitroaniline	44	
		N-Nitrosodiphenylamine	33	
		Pentachlorophenol	37.4	
		Carbazole	70.7	
		3,3'-Dichlorobenzidine	30	
		Benzo(g,h,i)perylene	-35.2	
		Hexachlorocyclopentadiene	25.8	97384961
		2,4-Dinitrophenol	71.4	
		4-Nitroaniline	34	
		4,6-Dinitro-2-methylphenol	53.7	
		bis(2-ethylhexyl)phthalate	-30.5	
		Di-n-octylphthalate	-41.6	

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J).

5. Detection Limits—Acceptable

Laboratory reporting limits are less than or equal to project required quantitation limits.

6. Blanks

a. Laboratory Method Blanks

Laboratory method blank frequency criteria were met.

The following compounds were detected in laboratory method blanks.

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Blank ID	Lim No. Date	Compound (Retention Time)	Concentration (µg/kg)	Associated Samples
MB#0	97-17682 10/10/97	1,1,2,2-Tetrachloroethane (6.78)	43	97384909, 97384910, 97384911, 97384912
		Unknown Hydrocarbon (13.85)	43	
		Unknown (22.64)	32	
MB#1	97-17605 10/22/97	Bis(2-Ethylhexyl)phthalate	21	97384103, 97384104, 97384105, 97384106, 97384108, 97384109, 97384901, 97384903, 97384904, 97384905, 97384906, 97384907, 97384908, 97384913, 97384915, 97384916, 97384901DL, 97384906DL, 97384917, 97384919, 97384921, 97384922
		1,1,2,2-Tetrachloroethane (6.79)	50	
		Unknown Hydrocarbon (13.95)	25	
MB#2	97-17585 10/22/97	Bis(2-Ethylhexyl)phthalate	29	97384924, 97384925, 97384926, 97384927, 97384928, 97384929, 97384930, 97384933, 97384934, 97384933DL, 97384934DL, 97384935DL, 97384935
		1,1,2,2-Tetrachloroethane (6.78)	57	
		Unknown Ester (17.22)	24	
		Unknown (23.13)	33	
		Unknown Acid Ester (24.57)	170	
		Unknown (24.91)	170	
		Unknown (26.72)	130	
		Unknown (26.80)	250	
		Unknown (27.54)	360	
MB#3		bis(2-Ethylhexyl)phthalate	20	97384941, 97384943, 97384944, 97384945, 97384950, 97384952, 97384937, 97384954, 97384956, 97384958, 97384960, 97384963, 97384964, 97384965, 97384966, 97384967, 97384947,
	10/23/97	1,1,2,2-Tetrachloroethane (6.77)	49	97384937DL, 97384938DL, 97384941DL, 97384943DL, 97384944DL, 97384945DL, 97384947DL, 97384938
		Unknown Chlorinated Hydrocarbon (7.30)	22	
		Unknown Hydrocarbon (13.90)	28	
		Isopropyl Myristate (17.20)	22	
MB#4		1,1,2,2-Tetrachloroethane (8.27)	61	97384939, 97384940, 97384939DL, 97384940DL
	11/3/97	Unknown Hydrocarbon (25.03)	41	
MB#5		1,1,2,2-Tetrachloroethane (6.81)	31	97384961
		11/10/97		

Reported levels of the above compounds were qualified as undetected with an adjusted quantitation limit (UJ) in samples if concentrations were less than five

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times concentrations present in the blank (ten times for common laboratory contaminants [e.g., phthalates]).

b. Field Blanks

No field blanks were associated with this SDG.

7. System Monitoring Compounds (Surrogates)

Surrogate compound percent recovery met quality control criteria for all samples except:

Sample	Fraction	Compound	Percent Recovery	QC Limits
97384926	Pest/PCB	Tetrachloro-m-xylene	9.5 %	30 - 150
97384930	Pest/PCB	Tetrachloro-m-xylene	28.2%	30 - 150

Results and quantitation limits for samples listed above were qualified as estimated (J/UJ) if any two semivolatile surrogates were outside the recovery limits. For samples with any surrogate recovery less than 10 percent, positive results were qualified as estimated (J) and quantitation limits for undetected compounds were rejected (R).

8. Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) or matrix spike duplicate (MSD) percent recovery for the following compounds were outside QC guidelines.

Sample	Fraction	Compound	Percent Recovery	QC Limits
97384925	BNA	Pyrene	19	35-142
LCS (97-17585)	BNA	N-Nitroso-di-n-propylamine	23.8	41-126
		1,2,4-Trichlorobenzene	34.5	38-107
LCS (97-17605)	BNA	N-Nitroso-di-n-propylamine	27.8	41-126
LCS (97-17615)	BNA	N-Nitroso-di-n-propylamine	26.4	41-126
LCS(97-17617)	BNA	N-Nitroso-di-n-propylamine	36.5	41-126
				41-126
LCS (97-17630)	BNA	N-Nitroso-di-n-propylamine	25.8	38-107
		1,2,4-Trichlorobenzene	30.1	

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Sample	Fraction	Compound	Percent Recovery	QC Limits
LCS (97-17682)	BNA	N-Nitroso-di-n-propylamine	36	41-126

Relative percent differences (RPD) between the MS and MSD percent recoveries exceeded QC guidelines for the following compounds:

Sample	Fraction	Compound	RPD	QC Limits
97384925	BNA	Pyrene	86	36
97384952	BNA	Pentachlorophenol	77	47
		Pyrene	44	36

No action was taken based on MS/MSD data since surrogate compound recoveries were acceptable.

#### 9. Field Duplicate Analysis

Samples 97384913/97384915 and 97384941/97384943 were field duplicates. Duplicate results exhibited relative percent differences (RPD) less than 35%, with the exception of the following:

Sample IDs	Analyte	Original	Duplicate	RPD
97384941/97384943	Naphthalene	510	280	58.2
	2-Methylnaphthalene	530	240	75.3
	Acenaphthene	11000	5200	71.6
	Dibenzofuran	2600	1500	53.7
	Fluorene	11000	4800	78.5
	Phenanthrene	40000	18000	75.9
	Carbazole	2000	580	110.1
	Anthracene	8000	3500	78.3
	Fluoranthene	19000	9600	65.7
	Pyrene	17000	8400	67.7
	Benzo(a)anthracene	2900	1600	57.8
	Chrysene	3200	1800	56
	Benzo(b)fluoranthene	1100	770	35.3

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Site: Willamette River

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Sample IDs	Analyte	Original	Duplicate	RPD
	Benzo(k)fluoranthene	1200	770	43.6
	Benzo(a)pyrene	1400	830	51.1
	Indeno(1,2,3-cd)pyrene	520	290	56.8
	Dibenzo(a,h)anthracene	210	120	54.5
	Benzo(g,h,i)perylene	460	290	45.3

No action was taken since field duplicate results reflect field variability rather than laboratory performance.

#### 10. Internal Standards Performance

Internal standard areas were within requirements of -50 percent to +100 percent of associated calibration internal standard areas. Retention time shifts for internal standards met requirements of less than 30 seconds.

#### 11. GC/ECD Instrument Performance

##### a. Resolution Check Mixture

The resolution check mixture was analyzed at the proper frequency. Resolution (valley depth) between adjacent peaks was greater than 60 percent of the shorter peak.

##### b. Performance Evaluation Mixture

###### i. Frequency

Samples were analyzed at the proper frequency.

###### ii. Resolution

Resolution was greater than 90 percent for all adjacent peaks.

###### iii. Retention Time Windows

Retention times of all pesticides were within windows calculated from the initial calibration.

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Site: Willamette River

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iv. Pesticide Recovery

Recovery for all single component pesticides and surrogate compounds were within QC limits of 75 to 125 percent for both GC columns.

v. DDT/Endrin Breakdown

The percent breakdown for 4,4'-DDT and Endrin was less than 20 percent for each compound and combined breakdown was less than 30 percent on both GC columns.

12. Pesticide Initial Calibration

a. Individual Standard Mixtures

Resolution between adjacent peaks for the initial calibration, mid level concentration was greater than 90 percent.

Retention time windows were calculated correctly.

Appropriate standards concentrations were used and peak heights of 50 to 100 percent of full scale were obtained.

Calibration factor percent relative standard deviation (%RSD) exceeded QC criteria of 20 percent for pesticides and 30 percent for surrogates listed below:

Date	Time	GC Column	Mix	Analyte	% RSD
10/21/97	15:33	DB-5	B	Endrin Ketone	-95
10/22/97	18:35	DB-5	B	delta-BHC	45
				Endosulfan Sulfate	43
				Endrin Ketone	43
10/22/97	18:35	DB-608	B	delta-BHC	60
				Endosulfan Sulfate	50
				Endrin Ketone	43

Results and quantitation limits for analytes listed above have been qualified as estimated (J).

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13. Pesticide Calibration Verification

Instrument blanks and PEM samples were analyzed at the proper frequency.

Resolution between adjacent peaks in individual pesticide mixtures exceeded 90 percent.

Pesticide standard peaks actual and calculated concentrations of individual pesticides was within QC criteria of  $\pm 25$  percent.

The difference between actual and calculated concentrations of individual pesticides was within QC criteria of  $\pm 25$  percent.

14. Pesticide Cleanup Checks

a. Florisil Cartridge Cleanup

Recovery for mixture A pesticides and surrogates were within QC limits of 80 to 120 percent. Recovery of 2,4,5-trichlorophenol was less than 5 percent as required.

b. Gel Permeation Cleanup (GPC)

All pesticides in the matrix spiking solution met recovery limits of 80 to 110 percent. Aroclor-1016 and 1260 patterns matched those of standards.

GPC blank concentrations did not exceed one-half the quantitation limit for any target analytes.

15. Sample Analysis

The following sample results exhibited greater than 35 percent difference between the primary and confirmation columns for pesticide analysis.

Sample ID	Analyte	DB-5	DB-608	% D
97384913	4,4'-DDD	5	3.1	61.3
	4,4'-DDT	12	7.2	66.7
97384915	4,4'-DDD	4.2	3	40
	4,4'-DDT	5	3.2	56.2

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Sample ID	Analyte	DB-5	DB-608	% D
97384917	4,4'-DDD	3.6	2.6	38.5
	4,4'-DDT	5.5	3.9	41
97384919	4,4'-DDD	6.4	4.2	52.4
	4,4'-DDT	19	11	72.7
97384922	4,4'-DDD	2.7	1.7	58.8
97384926	4,4'-DDD	11	4.8	129.2
	Aroclor-1254	55	29	90
97384930	4,4'-DDE	6.8	4.8	41.7
97384941	4,4'-DDD	33	11	200
	4,4'-DDT	67	27	148.1
	Aroclor-1254	48	120	150
97384943	4,4'-DDD	34	14	142.9
	4,4'-DDT	52	24	116.7
97384944	4,4'-DDE	9.2	5.3	73.6
	4,4'-DDD	37	22	68.2
	4,4'-DDT	76	40	90
97384945	4,4'-DDE	26	13	100
	4,4'-DDD	120	48	150
	4,4'-DDT	110	41	168.3
97384950 DL	4,4'-DDD	148	100	47.6
97384961	Aroclor-1254	200	140	43
97384930 DL	4,4'-DDD	45	99	120
97384944 DL	4,4'-DDD	32	47	46.9

Differences can arise from analytical interferences on one column however, the percent differences are not deemed significant at the reported concentrations. The lower concentration was reported for each analyte.

#### 16. Laboratory Contact

No laboratory contact was required.

#### Data Assessment

Upon consideration of the data qualifications noted above, the data are ACCEPTABLE for use except where flagged with data qualifiers that modify the usefulness of the individual values.

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Data Qualifiers

- U - The compound was analyzed for, but was not detected.
- UJ - The compound was analyzed for, but was not detected. The associated quantitation limit is an estimate because quality control criteria were not met.
- J - The analyte was positively identified, but the associated numerical value is an estimated quantity because quality control criteria were not met or because concentrations reported are less than the quantitation limit or lowest calibration standard.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification.
- N - Presumptive evidence of presence of material (tentative identification).

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914A

LIMS ID: 97-17585

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4103

WR-SD - SD036-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/22/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.7%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	450
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	30
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	26
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	81
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	52
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00157

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1/22/98

000510



ANALYTICAL  
RESOURCES  
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ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

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Lab Sample ID: T914A

LIMS ID: 97-17585

Matrix: Sediment

Data Release Authorized: *OKYB*

Reported: 11/13/97

Sample No: 9738 4103

WR-SD- SD036-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/22/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.7%

pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	82
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	540
86-74-8	Carbazole	31 U
120-12-7	Anthracene	61
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	560
129-00-0	Pyrene	470
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	160
117-81-7	bis(2-Ethylhexyl)phthalate	150 <i>μ</i> g
218-01-9	Chrysene	190
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	150
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	75
53-70-3	Dibenz(a,h)anthracene	26
191-24-2	Benzo(g,h,i)perylene	83

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	39.0%	d5-Phenol	49.7%
2-Fluorobiphenyl	50.1%	2-Fluorophenol	44.0%
d14-p-Terphenyl	68.1%	2,4,6-Tribromophenol	71.0%
d4-1,2-Dichlorobenzene	31.7%	d4-2-Chlorophenol	42.8%

FORM-1

00168

JMB 1/22/97  
090511



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4103

WR-SD-SD036-0000

Lab Sample ID: T914A  
LIMS ID: 97-17585  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *JMB*  
Reported: 11/13/97

Date Analyzed: 10/22/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.47	SVOA	450 J N
2. --	Unknown_Organic_Acid_____	11.63	SVOA	560 J N
3. --	Unknown_____	17.40	SVOA	440 J N
4. --	Unknown_Alcohol_____	17.75	SVOA	530 J N
5. --	Unknown_Aromatic_____	18.39	SVOA	840 J N
6. --	Unknown_Organic_Acid_____	18.49	SVOA	400 J N
7. --	Unknown_Aromatic_____	20.69	SVOA	300 J N
8. --	Unknown_Alcohol_____	24.76	SVOA	320 J N
9. --	Unknown_Aldehyde_____	25.52	SVOA	290 J N
10. --	Unknown_Aromatic_____	26.05	SVOA	320 J N
11. --	Unknown_Sterol_type_____	26.28	SVOA	750 J N
12. --	Unknown_Sterol_type_____	26.55	SVOA	430 J N
13. --	Unknown_Sterol_type_____	27.02	SVOA	360 J N
14. --	Unknown_Sterol_type_____	27.43	SVOA	1,400 J N
15. --	Unknown_____	27.49	SVOA	370 J N
16. --	Unknown_Aromatic_____	27.58	SVOA	440 J N
17. --	Unknown_____	27.76	SVOA	690 J N
18. --	Unknown_Aromatic_____	27.89	SVOA	960 J N
19. --	Unknown_Aromatic_____	28.05	SVOA	470 J N
20. --	Unknown_Sterol_type_____	28.34	SVOA	510 J N

FORM-1-B

00159

*JMB*  
12/22/97

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

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Lab Sample ID: T914B

LIMS ID: 97-17586

Matrix: Sediment

Data Release Authorized: *ONR*

Reported: 11/13/97

Sample No: 9738 4104

WR-SD- SD040-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/22/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.7%

pH: 6.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	640
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	30
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U <i>J</i>
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00170

000562

*MB*  
*1/22/9*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914B

LIMS ID: 97-17586

Matrix: Sediment

Data Release Authorized: *ONP*

Reported: 11/13/97

Sample No: 9738 4104

WR-SD-SD040-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/22/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.7%

pH: 6.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U <i>J</i>
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	25
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	200
86-74-8	Carbazole	39 <i>J</i>
120-12-7	Anthracene	29
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	310
129-00-0	Pyrene	310
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	160
117-81-7	bis(2-Ethylhexyl)phthalate	190 <i>gU</i>
218-01-9	Chrysene	220
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	190
207-08-9	Benzo(k)fluoranthene	190
50-32-8	Benzo(a)pyrene	220
193-39-5	Indeno(1,2,3-cd)pyrene	120
53-70-3	Dibenz(a,h)anthracene	51
191-24-2	Benzo(g,h,i)perylene	140

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.6%	d5-Phenol	62.1%
2-Fluorobiphenyl	59.6%	2-Fluorophenol	61.4%
d14-p-Terphenyl	65.6%	2,4,6-Tribromophenol	70.3%
d4-1,2-Dichlorobenzene	49.5%	d4-2-Chlorophenol	58.8%

FORM-1

00171

*JMB*  
*1/22/98*  
~~000563~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4104

WR-SD - SDD40-0000

Lab Sample ID: T914B

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17586

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *BWB*

Reported: 11/13/97

Date Analyzed: 10/22/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.55	SVOA	540 J N
2. --	Unknown_Organic_Acid_____	11.65	SVOA	740 J N
3. --	Unknown_Organic_Acid_____	16.74	SVOA	370 J N
4. --	Unknown_Organic_Acid_____	17.40	SVOA	470 J N
5. --	Unknown_Alcohol_____	17.58	SVOA	490 J N
6. --	Unknown_Ketone_____	18.34	SVOA	400 J N
7. --	Unknown_Organic_Acid_____	18.51	SVOA	400 J N
8. --	Unknown_Aldehyde_____	24.39	SVOA	680 J N
9. --	Unknown_____	24.76	SVOA	300 J N
10. --	Unknown_Aromatic_____	26.05	SVOA	310 J N
11. --	Unknown_Sterol_type_____	26.28	SVOA	770 J N
12. --	Unknown_Aromatic_____	26.55	SVOA	420 J N
13. --	Unknown_Sterol_type_____	27.03	SVOA	440 J N
14. --	Unknown_Sterol_type_____	27.43	SVOA	1,000 J N
15. --	Unknown_____	27.49	SVOA	500 J N
16. --	Unknown_Aromatic_____	27.59	SVOA	400 J N
17. --	Unknown_____	27.76	SVOA	650 J N
18. --	Unknown_____	27.89	SVOA	830 J N
19. --	Unknown_Aromatic_____	28.07	SVOA	410 J N
20. --	Unknown_Sterol_type_____	28.34	SVOA	470 J N

00172

FORM-1-B

*JMB*  
12/22/97

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914C

LIMS ID: 97-17587

Matrix: Sediment

Data Release Authorized: *EMD*

Reported: 11/13/97

Sample No: 9738 4105

WR-SD- SD042-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.1%

pH: 6.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	680
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	36
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i> R
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

00173

FORM-1

JMB  
1/22/98

000611



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914C

LIMS ID: 97-17587

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 11/13/97

Sample No: 9738 4105

WR-SD- SD042-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.1%

pH: 6.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	79
86-74-8	Carbazole	28 <i>J</i>
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	140
129-00-0	Pyrene	140
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	64
117-81-7	bis(2-Ethylhexyl)phthalate	130 <i>S</i> <i>U</i>
218-01-9	Chrysene	97
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	75
207-08-9	Benzo(k)fluoranthene	75
50-32-8	Benzo(a)pyrene	81
193-39-5	Indeno(1,2,3-cd)pyrene	48
53-70-3	Dibenz(a,h)anthracene	21
191-24-2	Benzo(g,h,i)perylene	57

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.0%	d5-Phenol	63.0%
2-Fluorobiphenyl	63.0%	2-Fluorophenol	63.3%
d14-p-Terphenyl	69.5%	2,4,6-Tribromophenol	74.0%
d4-1,2-Dichlorobenzene	48.4%	d4-2-Chlorophenol	58.7%

00174

FORM-1

*MKE*  
000612 1/22/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4105

WR-SD- SD042-0000

Lab Sample ID: T914C

LIMS ID: 97-17587

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *DRW*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.64	SVOA	530 J N
2. --	Unknown_Organic_Acid_____	6.86	SVOA	200 J N
3. --	Unknown_Organic_Acid_____	11.63	SVOA	710 J N
4. --	Unknown_____	17.38	SVOA	450 J N
5. --	Unknown_Ketone_____	18.33	SVOA	430 J N
6. --	Unknown_Organic_Acid_____	18.48	SVOA	350 J N
7. --	Unknown_Aromatic_____	20.67	SVOA	310 J N
8. --	Unknown_Aromatic_____	26.01	SVOA	320 J N
9. --	Unknown_Sterol_type_____	26.24	SVOA	460 J N
10. --	Unknown_Sterol_type_____	26.31	SVOA	280 J N
11. --	Unknown_Sterol_type_____	26.52	SVOA	290 J N
12. --	Unknown_Sterol_type_____	26.99	SVOA	260 J N
13. --	Unknown_Sterol_type_____	27.41	SVOA	1,300 J N
14. --	Unknown_Sterol_type_____	27.47	SVOA	420 J N
15. --	Unknown_Aromatic_____	27.55	SVOA	640 J N
16. --	Unknown_____	27.61	SVOA	320 J N
17. --	Unknown_____	27.74	SVOA	640 J N
18. --	Unknown_____	27.87	SVOA	730 J N
19. --	Unknown_Sterol_type_____	28.03	SVOA	360 J N
20. --	Unknown_Sterol_type_____	28.30	SVOA	410 J N

FORM-1-B

00175

*JMB*  
*12/22/97*

*07AAT13*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914D

LIMS ID: 97-17588

Matrix: Sediment

Data Release Authorized: *AMB*

Reported: 11/13/97

Sample No: 9738 4106

WR-SD- SD049-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.6%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	460
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	62
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	47
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	80
51-28-5	2,4-Dinitrophenol	190 <i>JR</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	54
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00176

*JMB*  
12/1998

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914D

LIMS ID: 97-17588

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/13/97

Sample No: 9738 4106

WR-SD- SD049-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.6%

pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	74
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 <i>p</i> U <i>J</i>
85-01-8	Phenanthrene	420
86-74-8	Carbazole	61 <i>J</i>
120-12-7	Anthracene	54
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	560
129-00-0	Pyrene	380
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	140
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>p</i> U
218-01-9	Chrysene	160
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	130
207-08-9	Benzo(k)fluoranthene	93
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	58
53-70-3	Dibenz(a,h)anthracene	23
191-24-2	Benzo(g,h,i)perylene	67

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.9%	d5-Phenol	57.4%
2-Fluorobiphenyl	55.0%	2-Fluorophenol	58.8%
d14-p-Terphenyl	67.4%	2,4,6-Tribromophenol	79.2%
d4-1,2-Dichlorobenzene	43.2%	d4-2-Chlorophenol	53.5%

FORM-1

00177

090659

*JMB*  
*12/21/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4106

WR-SD - SD049-0000

Lab Sample ID: T914D

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17588

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *003*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.60	SVOA	490 J N
2. --	Unknown_Organic_Acid_____	11.63	SVOA	650 J N
3. --	Unknown_Organic_Acid_____	16.70	SVOA	220 J N
4. --	Unknown_____	17.37	SVOA	330 J N
5. --	Unknown_Alcohol_____	17.72	SVOA	250 J N
6. --	Unknown_Aromatic_____	18.36	SVOA	520 J N
7. --	Unknown_Organic_Acid_____	18.48	SVOA	300 J N
8. --	Unknown_Aromatic_____	20.67	SVOA	570 J N
9. --	Unknown_Aromatic_____	23.42	SVOA	460 J N
10. --	Unknown_Sterol_type_____	24.73	SVOA	480 J N
11. --	Unknown_Sterol_type_____	26.02	SVOA	560 J N
12. --	Unknown_Sterol_type_____	26.24	SVOA	810 J N
13. --	Unknown_Sterol_type_____	27.40	SVOA	2,400 J N
14. --	Unknown_____	27.47	SVOA	1,300 J N
15. --	Unknown_____	27.55	SVOA	1,300 J N
16. --	Unknown_____	27.61	SVOA	900 J N
17. --	Unknown_Aromatic_____	27.74	SVOA	1,500 J N
18. --	Unknown_Aromatic_____	27.86	SVOA	1,500 J N
19. --	Unknown_Sterol_type_____	28.03	SVOA	760 J N
20. --	Unknown_Sterol_type_____	28.30	SVOA	740 J N

FORM-1-B

00178

*JMB*  
12/22/97

*099060*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914E

LIMS ID: 97-17589

Matrix: Sediment

Data Release Authorized: *ems*

Reported: 11/13/97

Sample No: 9738 4108

WR-SD- SD051-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.1%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	1,000
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethyphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	360
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	530
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	760
51-28-5	2,4-Dinitrophenol	190 <i>XR</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	290
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00179

*JMB*  
1/22/98

~~030710~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914E

LIMS ID: 97-17589

Matrix: Sediment

Data Release Authorized: *ON*

Reported: 11/13/97

Sample No: 9738 4108

WR-SD- SD051-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.1%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	380
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	1,200
86-74-8	Carbazole	650 <i>J</i>
120-12-7	Anthracene	150
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,300
129-00-0	Pyrene	900
85-68-7	Butylbenzylphthalate	37
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	380
117-81-7	bis(2-Ethylhexyl)phthalate	220 <i>P</i>
218-01-9	Chrysene	470
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	370
207-08-9	Benzo(k)fluoranthene	340
50-32-8	Benzo(a)pyrene	390
193-39-5	Indeno(1,2,3-cd)pyrene	220
53-70-3	Dibenz(a,h)anthracene	73
191-24-2	Benzo(g,h,i)perylene	250

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.7%	d5-Phenol	66.7%
2-Fluorobiphenyl	65.1%	2-Fluorophenol	68.7%
d14-p-Terphenyl	68.8%	2,4,6-Tribromophenol	82.9%
d4-1,2-Dichlorobenzene	53.5%	d4-2-Chlorophenol	63.2%

FORM-1

00180

*JMB*  
1/22/98

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4108

WR-SD-SD051-0000

Lab Sample ID: T914E

LIMS ID: 97-17589

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *MB*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	6.74	SVOA	820 J N
2.	-- Unknown_Organic_Acid_____	6.94	SVOA	210 J N
3.	-- Unknown_Organic_Acid_____	11.67	SVOA	880 J N
4.	-- Unknown_PNA_____	18.15	SVOA	230 J N
5.	-- Unknown_Aromatic_____	18.37	SVOA	950 J N
6.	-- Unknown_Organic_Acid_____	18.49	SVOA	480 J N
7.	-- Unknown_____	19.12	SVOA	730 J N
8.	-- Unknown_____	19.28	SVOA	300 J N
9.	19407-28-4 Phenanthrene, _1,2,3,4,4a,	19.42	SVOA	620 J N
10.	-- Unknown_____	19.78	SVOA	1,400 J N
11.	-- Unknown_PCB_____	20.51	SVOA	210 J N
12.	-- Unknown_Aromatic_____	20.75	SVOA	2,200 J N
13.	-- Unknown_Acid_Ester_____	22.91	SVOA	400 J N
14.	-- Unknown_Aromatic_____	25.99	SVOA	270 J N
15.	-- Unknown_Sterol_type_____	26.26	SVOA	470 J N
16.	-- Unknown_Sterol_type_____	27.43	SVOA	1,500 J N
17.	-- Unknown_____	27.77	SVOA	640 J N
18.	-- Unknown_____	27.89	SVOA	790 J N
19.	-- Unknown_____	28.05	SVOA	280 J N
20.	-- Unknown_Sterol_type_____	28.33	SVOA	710 J N

FORM-1-B

00181

*JMB*  
12/22/97  
~~090712~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914F

LIMS ID: 97-17590

Matrix: Sediment

Data Release Authorized: *WR*

Reported: 11/13/97

Sample No: 9738 4109

WR-SD- SD053-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.2%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	350
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	210
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	67
77-47-4	Hexachlorocyclopentadiene	99 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 J
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	85
51-28-5	2,4-Dinitrophenol	200 <i>WR</i>
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	57
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00182

07A763

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914F

LIMS ID: 97-17590

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

Sample No: 9738 4109

WR-SD- SDcS3-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.2%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	83
100-01-6	4-Nitroaniline	99 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	520
86-74-8	Carbazole	130 <i>J</i>
120-12-7	Anthracene	96
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	800
129-00-0	Pyrene	710
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	300
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>S/U</i>
218-01-9	Chrysene	390
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	320
207-08-9	Benzo(k)fluoranthene	300
50-32-8	Benzo(a)pyrene	390
193-39-5	Indeno(1,2,3-cd)pyrene	210
53-70-3	Dibenz(a,h)anthracene	80
191-24-2	Benzo(g,h,i)perylene	240

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	55.7%	d5-Phenol	62.3%
2-Fluorobiphenyl	61.2%	2-Fluorophenol	61.4%
d14-p-Terphenyl	66.5%	2,4,6-Tribromophenol	82.9%
d4-1,2-Dichlorobenzene	46.4%	d4-2-Chlorophenol	57.4%

FORM-1

00183

*MB*  
1/22/99

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4109

WR-SD-SD 053-0000

Lab Sample ID: T914F

LIMS ID: 97-17590

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *DRB*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	11.58	SVOA	270 J N
2. --	Unknown_Organic_Acid_____	16.70	SVOA	190 J N
3. --	Unknown_C15.H12_PNA_____	18.14	SVOA	160 J N
4. --	Unknown_C15.H12_PNA_____	18.27	SVOA	170 J N
5. --	Unknown_Aromatic_____	18.37	SVOA	190 J N
6. --	Unknown_____	19.10	SVOA	160 J N
7. --	Unknown_C16.H14_PNA_____	19.29	SVOA	240 J N
8. --	Unknown_Aromatic_____	19.75	SVOA	340 J N
9. --	Unknown_Aromatic_____	20.70	SVOA	1,300 J N
10. --	Unknown_Aldehyde_____	24.37	SVOA	220 J N
11. --	Unknown_Aromatic_____	26.02	SVOA	240 J N
12. --	Unknown_Sterol_type_____	26.25	SVOA	290 J N
13. --	Unknown_Sterol_type_____	26.54	SVOA	160 J N
14. --	Unknown_Sterol_type_____	27.40	SVOA	1,000 J N
15. --	Unknown_____	27.47	SVOA	260 J N
16. --	Unknown_Aromatic_____	27.56	SVOA	260 J N
17. --	Unknown_____	27.74	SVOA	450 J N
18. --	Unknown_Sterol_type_____	27.87	SVOA	520 J N
19. --	Unknown_Aromatic_____	28.03	SVOA	250 J N
20. --	Unknown_Sterol_type_____	28.31	SVOA	300 J N

FORM-1-B

00134

JMB  
12/22/97  
079765



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914G

LIMS ID: 97-17591

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/13/97

Sample No: 9738 4901

WR-SD-SDS6-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.3%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	530
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	680
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	240
77-47-4	Hexachlorocyclopentadiene	94 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	36
208-96-8	Acenaphthylene	110
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	340
51-28-5	2,4-Dinitrophenol	190 <i>XR</i>
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	220
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00185

*JMB*  
1/22/98  
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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914G

LIMS ID: 97-17591

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

Sample No: 9738 4901

WR-SD-SD056-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.3%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	410
100-01-6	4-Nitroaniline	94 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	88 <i>J</i>
85-01-8	Phenanthrene	2,200 <i>KD</i>
86-74-8	Carbazole	610 <i>J</i>
120-12-7	Anthracene	680
84-74-2	Di-n-Butylphthalate	21
206-44-0	Fluoranthene	3,400 <i>E</i> 3900 <i>D</i>
129-00-0	Pyrene	3,500 <i>E</i> 3900 <i>D</i>
85-68-7	Butylbenzylphthalate	30
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	1,400
117-81-7	bis(2-Ethylhexyl)phthalate	430 <i>A</i>
218-01-9	Chrysene	1,800 <i>E</i> 1700 <i>D</i>
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,700 <i>E</i> 1000 <i>D</i>
207-08-9	Benzo(k)fluoranthene	1,000
50-32-8	Benzo(a)pyrene	1,800 <i>E</i> 1700 <i>D</i>
193-39-5	Indeno(1,2,3-cd)pyrene	1,100
53-70-3	Dibenz(a,h)anthracene	300
191-24-2	Benzo(g,h,i)perylene	1,300

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	65.7%	d5-Phenol	70.0%
2-Fluorobiphenyl	68.2%	2-Fluorophenol	71.8%
d14-p-Terphenyl	76.0%	2,4,6-Tribromophenol	88.3%
d4-1,2-Dichlorobenzene	56.0%	d4-2-Chlorophenol	66.9%

FORM-1

00186

000817 1/22/98  
JMB



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4901

WR-SD-SD056-0000

Lab Sample ID: T914G  
LIMS ID: 97-17591  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *AWA*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.55	SVOA	690 J N
2. --	Unknown_Organic_Acid_____	11.61	SVOA	530 J N
3. --	Unknown_C15.H12_PNA_____	18.16	SVOA	240 J N
4. --	Unknown_C15.H12_PNA_____	18.22	SVOA	360 J N
5. --	Unknown_Aromatic_____	18.40	SVOA	710 J N
6. --	Unknown_C16.H12_PNA_____	18.78	SVOA	240 J N
7. --	Unknown_____	19.87	SVOA	270 J N
8. --	Unknown_PNA_____	20.52	SVOA	290 J N
9. --	Unknown_Aromatic_____	20.73	SVOA	1,100 J N
10. --	Unknown_C17.H12_PNA_____	20.89	SVOA	320 J N
11. --	Unknown_C17.H12_PNA_____	20.94	SVOA	440 J N
12. --	Unknown_PNA_____	22.04	SVOA	380 J N
13. --	Unknown_C20.H12_PNA_____	24.99	SVOA	290 J N
14. --	Unknown_Sterol_type_____	26.00	SVOA	290 J N
15. --	Unknown_Sterol_type_____	26.28	SVOA	400 J N
16. --	Unknown_Sterol_type_____	27.44	SVOA	1,200 J N
17. --	Unknown_____	27.78	SVOA	460 J N
18. --	Unknown_____	27.89	SVOA	770 J N
19. --	Unknown_Aromatic_____	28.07	SVOA	500 J N
20. --	Unknown_Sterol_type_____	28.35	SVOA	780 J N

FORM-1-B

00187

JMB  
12/22/97

077813

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914G

LIMS ID: 97-17591

Matrix: Sediment

Data Release Authorized: *AWR*

Reported: 11/13/97

Sample No: 9738 4901

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 41.3%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	190 U
111-44-4	Bis-(2-Chloroethyl) Ether	380 U
95-57-8	2-Chlorophenol	190 U
541-73-1	1,3-Dichlorobenzene	190 U
106-46-7	1,4-Dichlorobenzene	190 U
100-51-6	Benzyl Alcohol	190 U
95-50-1	1,2-Dichlorobenzene	190 U
95-48-7	2-Methylphenol	190 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	190 U
106-44-5	4-Methylphenol	400
621-64-7	N-Nitroso-Di-N-Propylamine	380 U
67-72-1	Hexachloroethane	190 U
98-95-3	Nitrobenzene	190 U
78-59-1	Isophorone	190 U
88-75-5	2-Nitrophenol	940 U
105-67-9	2,4-Dimethylphenol	190 U
65-85-0	Benzoic Acid	1,900 U
111-91-1	bis(2-Chloroethoxy) Methane	190 U
120-83-2	2,4-Dichlorophenol	570 U
120-82-1	1,2,4-Trichlorobenzene	190 U
91-20-3	Naphthalene	560
106-47-8	4-Chloroaniline	570 U
87-68-3	Hexachlorobutadiene	190 U
59-50-7	4-Chloro-3-methylphenol	380 U
91-57-6	2-Methylnaphthalene	200
77-47-4	Hexachlorocyclopentadiene	940 U
88-06-2	2,4,6-Trichlorophenol	940 U
95-95-4	2,4,5-Trichlorophenol	940 U
91-58-7	2-Chloronaphthalene	190 U
88-74-4	2-Nitroaniline	940 U
131-11-3	Dimethylphthalate	190 U
208-96-8	Acenaphthylene	190 U
99-09-2	3-Nitroaniline	1,100 U
83-32-9	Acenaphthene	310
51-28-5	2,4-Dinitrophenol	1,900 U
100-02-7	4-Nitrophenol	940 U
132-64-9	Dibenzofuran	200
606-20-2	2,6-Dinitrotoluene	940 U

FORM-1

00188

ANALYTICAL  
RESOURCES  
INCORPORATED

00188

JME  
1/22/

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914G

LIMS ID: 97-17591

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/13/97

Sample No: 9738 4901

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 58.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 41.3%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	940 U
84-66-2	Diethylphthalate	190 U
7005-72-3	4-Chlorophenyl-phenylether	190 U
86-73-7	Fluorene	330
100-01-6	4-Nitroaniline	940 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,900 U
86-30-6	N-Nitrosodiphenylamine	190 U
101-55-3	4-Bromophenyl-phenylether	190 U
118-74-1	Hexachlorobenzene	190 U
87-86-5	Pentachlorophenol	940 U
85-01-8	Phenanthrene	2,200
86-74-8	Carbazole	390
120-12-7	Anthracene	580
84-74-2	Di-n-Butylphthalate	190 U
206-44-0	Fluoranthene	3,900
129-00-0	Pyrene	3,900
85-68-7	Butylbenzylphthalate	190 U
91-94-1	3,3'-Dichlorobenzidine	940 U
56-55-3	Benzo(a)anthracene	1,400
117-81-7	bis(2-Ethylhexyl) phthalate	360
218-01-9	Chrysene	1,700
117-84-0	Di-n-Octyl phthalate	190 U
205-99-2	Benzo(b)fluoranthene	1,000
207-08-9	Benzo(k)fluoranthene	1,400
50-32-8	Benzo(a)pyrene	1,700
193-39-5	Indeno(1,2,3-cd)pyrene	1,000
53-70-3	Dibenz(a,h)anthracene	300
191-24-2	Benzo(g,h,i)perylene	1,300

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.8%	d5-Phenol	60.3%
2-Fluorobiphenyl	58.8%	2-Fluorophenol	62.4%
d14-p-Terphenyl	60.0%	2,4,6-Tribromophenol	60.8%
d4-1,2-Dichlorobenzene	52.0%	d4-2-Chlorophenol	57.9%

FORM-1

00133

JME  
000875  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4901  
DILUTION  
Lab Sample ID: T914G QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17591 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *JMB*  
Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Aromatic_____	18.72	SVOA	800 J N
2. ---	Unknown_____	19.18	SVOA	850 J
3. ---	Unknown_Hydrocarbon_____	19.81	SVOA	420 J
4. ---	Unknown_Aromatic_____	21.02	SVOA	1,900 J
5. ---	Unknown_Hydrocarbon_____	21.27	SVOA	780 J
6. ---	Unknown_Hydrocarbon_____	22.61	SVOA	2,100 J
7. ---	Unknown_Hydrocarbon_____	23.25	SVOA	760 J
8. ---	Unknown_____	23.76	SVOA	440 J
9. ---	Unknown_Hydrocarbon_____	23.87	SVOA	3,100 J
10. ---	Unknown_Hydrocarbon_____	24.46	SVOA	1,200 J
11. ---	Unknown_Hydrocarbon_____	25.03	SVOA	1,600 J
12. ---	Unknown_C20.H12_PNA_____	25.26	SVOA	690 J
13. ---	Unknown_Hydrocarbon_____	25.57	SVOA	750 J
14. ---	Unknown_____	25.92	SVOA	470 J
15. ---	Unknown_Hydrocarbon_____	26.10	SVOA	520 J
16. ---	Unknown_Sterol_type_____	27.69	SVOA	2,500 J
17. ---	Unknown_____	28.02	SVOA	970 J
18. ---	Unknown_Sterol_type_____	28.13	SVOA	1,200 J
19. ---	Unknown_____	28.30	SVOA	710 J
20. ---	Unknown_Sterol_type_____	28.58	SVOA	1,500 J

FORM-1-B

00190

*JMB*  
12/22/97

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914H

LIMS ID: 97-17592

Matrix: Sediment

Data Release Authorized: *BWB*

Reported: 11/13/97

Sample No: 9738 4903

WR-SD- SD037- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.9%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 <i>J</i> <i>R</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	480
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	50
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	29
51-28-5	2,4-Dinitrophenol	190 <i>JR</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00191

090927

*MB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914H

LIMS ID: 97-17592

Matrix: Sediment

Data Release Authorized: *DMB*

Reported: 11/13/97

Sample No: 9738 4903

WR-SD-SD037-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.9%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	21
100-01-6	4-Nitroaniline	97 U J
534-52-1	4,6-Dinitro-2-Methylphenol	190 U J
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 J
85-01-8	Phenanthrene	140
86-74-8	Carbazole	39 J
120-12-7	Anthracene	31
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	220
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	91
117-81-7	bis(2-Ethylhexyl)phthalate	110 J
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	90
53-70-3	Dibenz(a,h)anthracene	29
191-24-2	Benzo(g,h,i)perylene	110

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.2%	d5-Phenol	56.7%
2-Fluorobiphenyl	56.9%	2-Fluorophenol	58.3%
d14-p-Terphenyl	64.6%	2,4,6-Tribromophenol	75.6%
d4-1,2-Dichlorobenzene	46.1%	d4-2-Chlorophenol	53.8%

FORM-1

00192

070923 JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4903

WR-SD- SD037-0000

Lab Sample ID: T914H  
LIMS ID: 97-17592  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *anjo*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.50	SVOA	160 J N
2. --	Unknown_Organic_Acid_____	11.60	SVOA	400 J N
3. --	Unknown_Organic_Acid_____	16.70	SVOA	210 J N
4. --	Unknown_Organic_Acid_____	17.36	SVOA	320 J N
5. --	Unknown_Cycloalkane_____	17.73	SVOA	220 J N
6. --	Unknown_Aromatic_____	19.74	SVOA	200 J N
7. --	Unknown_Aromatic_____	20.68	SVOA	530 J N
8. --	Unknown_Aromatic_____	23.43	SVOA	280 J N
9. --	Unknown_Sterol_type_____	26.03	SVOA	310 J N
10. --	Unknown_Sterol_type_____	26.25	SVOA	440 J N
11. --	Unknown_Sterol_type_____	26.53	SVOA	260 J N
12. --	Unknown_Sterol_type_____	27.00	SVOA	270 J N
13. --	Unknown_Sterol_type_____	27.41	SVOA	1,800 J N
14. --	Unknown_____	27.56	SVOA	1,000 J N
15. --	Unknown_____	27.62	SVOA	460 J N
16. --	Unknown_____	27.75	SVOA	1,000 J N
17. --	Unknown_____	27.88	SVOA	970 J N
18. --	Unknown_____	28.04	SVOA	540 J N
19. --	Unknown_____	28.20	SVOA	190 J N
20. --	Unknown_Sterol_type_____	28.32	SVOA	500 J N

FORM-1-B

00193

*JMB*  
*12/22/97*

~~000979~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914I

LIMS ID: 97-17593

Matrix: Sediment

Data Release Authorized: *CRS*

Reported: 11/13/97

Sample No: 9738 4904

WR-SD-SD038-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.2%

pH: 7.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	560
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	26
51-28-5	2,4-Dinitrophenol	190 <i>JR</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00194

000977  
JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914I

LIMS ID: 97-17593

Matrix: Sediment

Data Release Authorized: *ONR*

Reported: 11/13/97

Sample No: 9738 4904

WR-SD-SD038-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.2%

pH: 7.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	21
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	130
86-74-8	Carbazole	34 <i>J</i>
120-12-7	Anthracene	30
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	230
129-00-0	Pyrene	230
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	100
117-81-7	bis(2-Ethylhexyl)phthalate	140 <i>J</i> U
218-01-9	Chrysene	140
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	110
207-08-9	Benzo(k)fluoranthene	120
50-32-8	Benzo(a)pyrene	160
193-39-5	Indeno(1,2,3-cd)pyrene	89
53-70-3	Dibenz(a,h)anthracene	28
191-24-2	Benzo(g,h,i)perylene	120

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	47.4%	d5-Phenol	50.8%
2-Fluorobiphenyl	52.3%	2-Fluorophenol	52.8%
d14-p-Terphenyl	55.9%	2,4,6-Tribromophenol	67.3%
d4-1,2-Dichlorobenzene	39.8%	d4-2-Chlorophenol	48.3%

FORM-1

00195

000978 JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4904  
WR-SD- SD038-0000

Lab Sample ID: T914I  
LIMS ID: 97-17593  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *dkp*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.56	SVOA	390 J N
2. --	Unknown_Organic_Acid_____	11.62	SVOA	570 J N
3. --	Unknown_Organic_Acid_____	16.71	SVOA	300 J N
4. --	Unknown_____	17.39	SVOA	400 J N
5. --	Unknown_Cycloalkane_____	17.73	SVOA	300 J N
6. --	Unknown_____	18.37	SVOA	580 J N
7. --	Unknown_Aromatic_____	19.75	SVOA	720 J N
8. --	Unknown_Aromatic_____	20.68	SVOA	590 J N
9. --	Unknown_Aromatic_____	23.46	SVOA	1,200 J N
10. --	Unknown_____	26.04	SVOA	710 J N
11. --	Unknown_Sterol_type_____	26.26	SVOA	770 J N
12. --	Unknown_Sterol_type_____	26.32	SVOA	780 J N
13. --	Unknown_Sterol_type_____	27.01	SVOA	570 J N
14. --	Unknown_Sterol_type_____	27.42	SVOA	2,400 J N
15. --	Unknown_Aromatic_____	27.57	SVOA	2,000 J N
16. --	Unknown_____	27.63	SVOA	1,300 J N
17. --	Unknown_____	27.76	SVOA	2,300 J N
18. --	Unknown_____	27.89	SVOA	2,600 J N
19. --	Unknown_Sterol_type_____	28.05	SVOA	1,200 J N
20. --	Unknown_Sterol_type_____	28.33	SVOA	1,100 J N

FORM-1-B

00196

JMB  
12/22/97  
000979



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914J

LIMS ID: 97-17594

Matrix: Sediment

Data Release Authorized: *GW*

Reported: 11/13/97

Sample No: 9738 4905

WR-SD- SD039-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.9%

pH: 7.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	620
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	130
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	54
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	22
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	120
51-28-5	2,4-Dinitrophenol	200 <i>JR</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	24
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00197

001027

*MAB*  
*1/22/94*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914J

LIMS ID: 97-17594

Matrix: Sediment

Data Release Authorized: *AB*

Reported: 11/13/97

Sample No: 9738 4905

WR-SD-SD039-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.9%

pH: 7.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	95
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	920
86-74-8	Carbazole	60 <i>J</i>
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,200
129-00-0	Pyrene	1,100
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	340
117-81-7	bis(2-Ethylhexyl)phthalate	140 <i>gU</i>
218-01-9	Chrysene	460
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	320
207-08-9	Benzo(k)fluoranthene	360
50-32-8	Benzo(a)pyrene	500
193-39-5	Indeno(1,2,3-cd)pyrene	280
53-70-3	Dibenz(a,h)anthracene	66
191-24-2	Benzo(g,h,i)perylene	340

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.2%	d5-Phenol	60.6%
2-Fluorobiphenyl	61.4%	2-Fluorophenol	63.9%
d14-p-Terphenyl	66.5%	2,4,6-Tribromophenol	84.8%
d4-1,2-Dichlorobenzene	48.2%	d4-2-Chlorophenol	57.6%

FORM-1

00198

JME  
001028 1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4905

WR-SD- SD039-00x0

Lab Sample ID: T914J  
LIMS ID: 97-17594  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *MM*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.57	SVOA	620 J N
2. --	Unknown_Organic_Acid_____	11.63	SVOA	670 J N
3. --	Unknown_____	17.38	SVOA	360 J N
4. --	Unknown_C15.H12_PNA_____	18.20	SVOA	320 J N
5. --	Unknown_Aromatic_____	18.38	SVOA	590 J N
6. --	Unknown_Aromatic_____	19.75	SVOA	310 J N
7. --	Unknown_Aromatic_____	20.68	SVOA	370 J N
8. --	Unknown_Aromatic_____	23.44	SVOA	320 J N
9. --	Unknown_Aldehyde_____	24.37	SVOA	300 J N
10. --	Unknown_Sterol_type_____	26.26	SVOA	380 J N
11. --	Unknown_Sterol_type_____	27.00	SVOA	760 J N
12. --	Unknown_____	27.13	SVOA	580 J N
13. --	Unknown_Sterol_type_____	27.42	SVOA	1,500 J N
14. --	Unknown_____	27.47	SVOA	580 J N
15. --	Unknown_____	27.57	SVOA	900 J N
16. --	Unknown_____	27.62	SVOA	560 J N
17. --	Unknown_____	27.75	SVOA	980 J N
18. --	Unknown_____	27.87	SVOA	880 J N
19. --	Unknown_____	28.04	SVOA	520 J N
20. --	Unknown_Sterol_type_____	28.32	SVOA	410 J N

FORM-1-B

00199

JMB  
12/22/97

001029



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914K

LIMS ID: 97-17595

Matrix: Sediment

Data Release Authorized: *EMM*

Reported: 11/13/97

Sample No: 9738 4906

WR-SD-SD041-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.6%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	380
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	1,000
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	410
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	150
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	<del>4,300</del> E 5000 D
51-28-5	2,4-Dinitrophenol	200 <i>PR</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	240
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00200

001080 *JM*  
*1/221*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914K

LIMS ID: 97-17595

Matrix: Sediment

Data Release Authorized: *AMP*

Reported: 11/13/97

Sample No: 9738 4906

WR-SD-SD041-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.6%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	2,200 <del>E</del> 2100 D
100-01-6	4-Nitroaniline	98 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U J
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U J
85-01-8	Phenanthrene	10,000 <del>E</del> 16000 D
86-74-8	Carbazole	200 J
120-12-7	Anthracene	2,500 <del>E</del> 2700 D
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	7,800 <del>E</del> 10000 D
129-00-0	Pyrene	8,100 <del>E</del> 12000 D
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	2,600 <del>E</del> D
117-81-7	bis(2-Ethylhexyl)phthalate	160 <del>E</del> U
218-01-9	Chrysene	3,300 <del>E</del> 3500 D
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	3,000 <del>E</del> 1800 D
207-08-9	Benzo(k)fluoranthene	1,700 <del>E</del> 2300 D
50-32-8	Benzo(a)pyrene	3,800 <del>E</del> 3700 D
193-39-5	Indeno(1,2,3-cd)pyrene	2,100 <del>E</del> 2300 D
53-70-3	Dibenz(a,h)anthracene	560
191-24-2	Benzo(g,h,i)perylene	2,600 <del>E</del> 3100 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.6%	d5-Phenol	54.5%
2-Fluorobiphenyl	53.4%	2-Fluorophenol	58.8%
d14-p-Terphenyl	70.3%	2,4,6-Tribromophenol	69.3%
d4-1,2-Dichlorobenzene	47.5%	d4-2-Chlorophenol	53.5%

001081 JM  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4906

WR-SD- SD041-0000

Lab Sample ID: T914K  
LIMS ID: 97-17595  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *MBR*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.31	SVOA	720 J N
2. --	Naphthalene,_Ethyl_Isomer	13.24	SVOA	1,000 J N
3. --	Naphthalene,_Dimethyl_Iso	13.37	SVOA	1,000 J N
4. --	Naphthalene,_Dimethyl_Iso	13.54	SVOA	1,800 J N
5. --	Naphthalene,_Trimethyl_Is	14.70	SVOA	610 J N
6. --	Naphthalene,_Trimethyl_Is	14.91	SVOA	680 J N
7. --	Naphthalene,_Trimethyl_Is	15.07	SVOA	620 J N
8. 132-65-0	Dibenzothiophene_____	16.96	SVOA	1,300 J N
9. --	Unknown_Aromatic_____	17.82	SVOA	710 J N
10. --	Unknown_C15.H12_PNA_____	18.19	SVOA	760 J N
11. --	Unknown_C15.H12_PNA_____	18.26	SVOA	750 J N
12. --	Unknown_PNA_____	18.43	SVOA	1,600 J N
13. --	Unknown_C16.H12_PNA_____	18.80	SVOA	840 J N
14. --	Unknown_Aromatic_____	19.33	SVOA	680 J N
15. --	Unknown_____	19.79	SVQA	780 J N
16. --	Unknown_Aromatic_____	20.73	SVOA	980 J N
17. --	Unknown_C20.H12_PNA_____	25.00	SVOA	770 J N
18. --	Unknown_C20.H12_PNA_____	25.22	SVOA	750 J N
19. --	Unknown_Sterol_type_____	27.43	SVOA	630 J N
20. --	Unknown_____	27.88	SVOA	690 J N

*JMB*  
12/22/97

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914K

LIMS ID: 97-17595

Matrix: Sediment

Data Release Authorized: *CHB*

Reported: 11/13/97

Sample No: 9738 4906  
DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:20

Percent Moisture: 46.6%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	390 U
111-44-4	Bis-(2-Chloroethyl) Ether	790 U
95-57-8	2-Chlorophenol	390 U
541-73-1	1,3-Dichlorobenzene	390 U
106-46-7	1,4-Dichlorobenzene	390 U
100-51-6	Benzyl Alcohol	390 U
95-50-1	1,2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	390 U <i>J</i>
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-Di-N-Propylamine	790 U
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	2,000 U
105-67-9	2,4-Dimethylphenol	390 U
65-85-0	Benzoic Acid	3,900 U
111-91-1	bis(2-Chloroethoxy) Methane	390 U
120-83-2	2,4-Dichlorophenol	1,200 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	880
106-47-8	4-Chloroaniline	1,200 U <i>J</i>
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-methylphenol	790 U
91-57-6	2-Methylnaphthalene	390 U
77-47-4	Hexachlorocyclopentadiene	2,000 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	2,000 U
95-95-4	2,4,5-Trichlorophenol	2,000 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	2,000 U
131-11-3	Dimethylphthalate	390 U
208-96-8	Acenaphthylene	390 U
99-09-2	3-Nitroaniline	2,400 U <i>J</i>
83-32-9	Acenaphthene	5,000
51-28-5	2,4-Dinitrophenol	3,900 U <i>J</i>
100-02-7	4-Nitrophenol	2,000 U
132-64-9	Dibenzofuran	390 U
606-20-2	2,6-Dinitrotoluene	2,000 U

FORM-1

00203

001133 *JMK*, 12/19

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914K

LIMS ID: 97-17595

Matrix: Sediment

Data Release Authorized: *BWP*

Reported: 11/13/97

Sample No: 9738 4906  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:20  
Percent Moisture: 46.6%  
pH: 6.5

<u>CAS Number</u>	<u>Analyte</u>	<u>ug/kg</u>
121-14-2	2,4-Dinitrotoluene	2,000 U
84-66-2	Diethylphthalate	390 U
7005-72-3	4-Chlorophenyl-phenylether	390 U
86-73-7	Fluorene	2,100
100-01-6	4-Nitroaniline	2,000 U J
534-52-1	4,6-Dinitro-2-Methylphenol	3,900 U
86-30-6	N-Nitrosodiphenylamine	390 U
101-55-3	4-Bromophenyl-phenylether	390 U
118-74-1	Hexachlorobenzene	390 U
87-86-5	Pentachlorophenol	2,000 U J
85-01-8	Phenanthrene	16,000
86-74-8	Carbazole	390 U J
120-12-7	Anthracene	2,700
84-74-2	Di-n-Butylphthalate	390 U
206-44-0	Fluoranthene	10,000
129-00-0	Pyrene	12,000
85-68-7	Butylbenzylphthalate	390 U
91-94-1	3,3'-Dichlorobenzidine	2,000 U J
56-55-3	Benzo(a)anthracene	2,600
117-81-7	bis(2-Ethylhexyl)phthalate	390 U
218-01-9	Chrysene	3,500
117-84-0	Di-n-Octyl phthalate	390 U
205-99-2	Benzo(b)fluoranthene	1,800
207-08-9	Benzo(k)fluoranthene	2,300
50-32-8	Benzo(a)pyrene	3,700
193-39-5	Indeno(1,2,3-cd)pyrene	2,300
53-70-3	Dibenz(a,h)anthracene	510
191-24-2	Benzo(g,h,i)perylene	3,100

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	44.8%	d5-Phenol	47.5%
2-Fluorobiphenyl	48.0%	2-Fluorophenol	57.6%
d14-p-Terphenyl	55.2%	2,4,6-Tribromophenol	50.1%
d4-1,2-Dichlorobenzene	50.4%	d4-2-Chlorophenol	50.7%

FORM-1

00204

001134 *JME*  
*1/22/99*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4906  
DILUTION  
Lab Sample ID: T914K QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17595 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *bwp*  
Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_-	12.67	SVOA	900 JN
2. ---	Naphthalene,_Ethyl_Isomer	13.58	SVOA	1,500 J N
3. ---	Naphthalene,_Dimethyl_Iso	13.71	SVOA	1,400 J
4. ---	Naphthalene,_Dimethyl_Iso	13.89	SVOA	2,500 J
5. ---	Unknown_Hydrocarbon_____	14.12	SVOA	1,700 J
6. ---	Naphthalene,_Trimethyl_Is	15.22	SVOA	1,000 J
7. ---	Naphthalene,_Trimethyl_Is	15.39	SVOA	830 J
8. ---	Unknown_Hydrocarbon_____	15.98	SVOA	1,800 J
9. ---	Unknown_Hydrocarbon_____	16.51	SVOA	1,300 J
10. 132-65-0	Dibenzothiophene_____	17.27	SVOA	1,000 JN
11. ---	Unknown_____	18.72	SVOA	1,600 J N
12. ---	Unknown_____	21.04	SVOA	1,700 J
13. ---	Unknown_Siloxane_____	22.01	SVOA	900 J
14. ---	Unknown_Hydrocarbon_____	22.61	SVOA	1,200 J
15. ---	Unknown_Siloxane_____	22.93	SVOA	1,200 J
16. ---	Unknown_Siloxane_____	23.77	SVOA	1,200 J
17. ---	Unknown_Hydrocarbon_____	23.87	SVOA	1,400 J
18. ---	Unknown_Siloxane_____	24.57	SVOA	920 J
19. ---	Unknown_C20.H12_PNA	25.26	SVOA	830 J
20. ---	Unknown_Sterol_type	27.68	SVOA	1,200 J

FORM-1-B

00205

001135 JM  
11/22



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914L

LIMS ID: 97-17596

Matrix: Sediment

Data Release Authorized: *OKS*

Reported: 11/13/97

Sample No: 9738 4907

WR-SD- SD043- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.3%

pH: 6.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	480
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	37
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	43
51-28-5	2,4-Dinitrophenol	190 <i>XR</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00206

001185

*JMB  
11/21/*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914L

LIMS ID: 97-17596

Matrix: Sediment

Data Release Authorized: *onp*

Reported: 11/13/97

Sample No: 9738 4907

WR-SD-SD043-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.3%

pH: 6.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	34
100-01-6	4-Nitroaniline	96 U J
534-52-1	4,6-Dinitro-2-Methylphenol	190 U J
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U J
85-01-8	Phenanthrene	210
86-74-8	Carbazole	52 J
120-12-7	Anthracene	48
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	700
129-00-0	Pyrene	490
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	130
117-81-7	bis(2-Ethylhexyl)phthalate	160 P U
218-01-9	Chrysene	180
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	140
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	83
53-70-3	Dibenz(a,h)anthracene	23
191-24-2	Benzo(g,h,i)perylene	95

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.3%	d5-Phenol	58.6%
2-Fluorobiphenyl	61.0%	2-Fluorophenol	61.3%
d14-p-Terphenyl	64.6%	2,4,6-Tribromophenol	82.2%
d4-1,2-Dichlorobenzene	45.0%	d4-2-Chlorophenol	56.0%

FORM-1

00207

001186

JME  
11/22/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4907  
WR-SD- SD043-000U

Lab Sample ID: T914L  
LIMS ID: 97-17596  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *6WP*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.51	SVOA	110 JN
2. --	Unknown_Organic_Acid_____	11.61	SVOA	480 JN
3. --	Unknown_Organic_Acid_____	16.71	SVOA	270 JN
4. --	Unknown_____	17.39	SVOA	370 JN
5. --	Unknown_Aromatic_____	18.37	SVOA	620 JN
6. --	Unknown_____	18.83	SVOA	340 JN
7. --	Unknown_Aromatic_____	19.74	SVOA	300 JN
8. --	Unknown_Aromatic_____	20.69	SVOA	640 JN
9. --	Unknown_Aromatic_____	23.45	SVOA	360 JN
10. --	Unknown_Sterol_type_____	26.04	SVOA	440 JN
11. --	Unknown_Sterol_type_____	26.26	SVOA	510 JN
12. --	Unknown_Sterol_type_____	26.53	SVOA	300 JN
13. --	Unknown_Sterol_type_____	27.01	SVOA	320 JN
14. --	Unknown_Sterol_type_____	27.42	SVOA	1,300 JN
15. --	Unknown_____	27.58	SVOA	490 JN
16. --	Unknown_____	27.76	SVOA	970 JN
17. --	Unknown_Sterol_type_____	27.88	SVOA	1,200 JN
18. --	Unknown_Sterol_type_____	28.04	SVOA	600 JN
19. --	Unknown_____	28.21	SVOA	230 JN
20. --	Unknown_Sterol_type_____	28.32	SVOA	560 JN

FORM-1-B

00208

JMB  
12/22/97

001187



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914M

LIMS ID: 97-17597

Matrix: Sediment

Data Release Authorized: *GRS*

Reported: 11/13/97

Sample No: 9738 4908

WR-SD- SD044-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.3%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	490
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	50
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	32
77-47-4	Hexachlorocyclopentadiene	100 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	56
51-28-5	2,4-Dinitrophenol	200 <i>J R</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	32
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00209

*JML*  
*12219*  
~~001234~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914M

LIMS ID: 97-17597

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/13/97

Sample No: 9738 4908

WR-SD-SD044-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.3%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 u
84-66-2	Diethylphthalate	20 u
7005-72-3	4-Chlorophenyl-phenylether	20 u
86-73-7	Fluorene	54
100-01-6	4-Nitroaniline	100 u
534-52-1	4,6-Dinitro-2-Methylphenol	200 u
86-30-6	N-Nitrosodiphenylamine	20 u
101-55-3	4-Bromophenyl-phenylether	20 u
118-74-1	Hexachlorobenzene	20 u
87-86-5	Pentachlorophenol	100 u
85-01-8	Phenanthrene	410
86-74-8	Carbazole	97
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	20 u
206-44-0	Fluoranthene	720
129-00-0	Pyrene	600
85-68-7	Butylbenzylphthalate	20 u
91-94-1	3,3'-Dichlorobenzidine	100 u
56-55-3	Benzo(a)anthracene	210
117-81-7	bis(2-Ethylhexyl)phthalate	140
218-01-9	Chrysene	310
117-84-0	Di-n-Octyl phthalate	20 u
205-99-2	Benzo(b)fluoranthene	210
207-08-9	Benzo(k)fluoranthene	240
50-32-8	Benzo(a)pyrene	260
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	45
191-24-2	Benzo(g,h,i)perylene	160

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.5%	d5-Phenol	50.3%
2-Fluorobiphenyl	52.3%	2-Fluorophenol	53.3%
d14-p-Terphenyl	60.9%	2,4,6-Tribromophenol	73.2%
d4-1,2-Dichlorobenzene	41.0%	d4-2-Chlorophenol	48.2%

FORM-1

00210

JME  
001235 1/221



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4908

WR- SD- SD044-0000

Lab Sample ID: T914M  
LIMS ID: 97-17597  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: *218*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.54	SVOA	520 J N
2. --	Unknown_Organic_Acid_____	11.62	SVOA	460 J N
3. --	Unknown_Organic_Acid_____	16.72	SVOA	310 J N
4. --	Unknown_Organic_Acid_____	17.39	SVOA	330 J N
5. --	Unknown_Aromatic_____	18.37	SVOA	570 J N
6. --	Unknown_Organic_Acid_____	18.49	SVOA	300 J N
7. --	Unknown_____	18.83	SVOA	210 J N
8. --	Unknown_Aromatic_____	20.68	SVOA	280 J N
9. --	Unknown_Aldehyde_____	24.37	SVOA	310 J N
10. --	Unknown_____	26.03	SVOA	280 J N
11. --	Unknown_Sterol_type_____	26.26	SVOA	470 J N
12. --	Unknown_Sterol_type_____	26.54	SVOA	230 J N
13. --	Unknown_Sterol_type_____	27.00	SVOA	300 J N
14. --	Unknown_Sterol_type_____	27.41	SVOA	940 J N
15. --	Unknown_____	27.57	SVOA	400 J N
16. --	Unknown_____	27.75	SVOA	640 J N
17. --	Unknown_____	27.88	SVOA	940 J N
18. --	Unknown_____	28.04	SVOA	450 J N
19. --	Unknown_____	28.21	SVOA	170 J N
20. --	Unknown_Sterol_type_____	28.33	SVOA	440 J N

FORM-1-B

002ii

001236

JMB  
12/22/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914N

LIMS ID: 97-17598

Matrix: Sediment

Data Release Authorized: *BWS*

Reported: 11/13/97

Sample No: 9738 4913

WR-SD-SD048-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.1%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	260
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	63
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	25
77-47-4	Hexachlorocyclopentadiene	95 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	51
51-28-5	2,4-Dinitrophenol	190 <i>XR</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00212

001285 JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914N

LIMS ID: 97-17598

Matrix: Sediment

Data Release Authorized: *AMF*

Reported: 11/13/97

Sample No: 9738 4913

WR-SD- SD048- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.1%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	38
100-01-6	4-Nitroaniline	95 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U <i>J</i>
85-01-8	Phenanthrene	230
86-74-8	Carbazole	67 <i>J</i>
120-12-7	Anthracene	62
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	380
129-00-0	Pyrene	400
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	180
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>S</i> <i>U</i>
218-01-9	Chrysene	260
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	190
207-08-9	Benzo(k)fluoranthene	210
50-32-8	Benzo(a)pyrene	290
193-39-5	Indeno(1,2,3-cd)pyrene	160
53-70-3	Dibenz(a,h)anthracene	45
191-24-2	Benzo(g,h,i)perylene	190

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	59.9%	d5-Phenol	60.7%
2-Fluorobiphenyl	64.0%	2-Fluorophenol	66.6%
d14-p-Terphenyl	67.8%	2,4,6-Tribromophenol	85.1%
d4-1,2-Dichlorobenzene	51.1%	d4-2-Chlorophenol	60.0%

FORM-1

00213

001286 JM  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4913

WR-SD- SD048-0000

Lab Sample ID: T914N

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17598

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *JMB*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.52	SVOA	550 J N
2. --	Unknown_Organic_Acid_____	11.60	SVOA	470 J N
3. --	Unknown_Organic_Acid_____	16.71	SVOA	240 J N
4. --	Unknown_Organic_Acid_____	17.37	SVOA	180 J N
5. --	Unknown_____	18.40	SVOA	660 J N
6. --	Unknown_____	18.61	SVOA	570 J N
7. --	Unknown_____	18.86	SVOA	1,800 J N
8. --	Unknown_C16.H14_PNA_____	19.30	SVOA	240 J N
9. --	Unknown_Aromatic_____	19.75	SVOA	260 J N
10. --	Unknown_Aromatic_____	20.68	SVOA	300 J N
11. --	Unknown_Aromatic_____	23.44	SVOA	280 J N
12. --	Unknown_Aldehyde_____	24.38	SVOA	260 J N
13. --	Unknown_Cycloalkane_____	24.75	SVOA	290 J N
14. --	Unknown_Sterol_type_____	26.26	SVOA	360 J N
15. --	Unknown_Aromatic_____	27.57	SVOA	430 J N
16. --	Unknown_____	27.76	SVOA	710 J N
17. --	Unknown_____	27.88	SVOA	840 J N
18. --	Unknown_Sterol_type_____	28.04	SVOA	450 J N
19. --	Unknown_____	28.21	SVOA	180 J N
20. --	Unknown_Sterol_type_____	28.32	SVOA	380 J N

FORM-1-B

00214

*JMB*  
12/22/97

~~001237~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T9140

LIMS ID: 97-17599

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/13/97

Sample No: 9738 4915

WR-SD- SD048-1000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.5%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	42
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	21
77-47-4	Hexachlorocyclopentadiene	100 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	45
51-28-5	2,4-Dinitrophenol	200 <i>JR</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00215

001335

*JMB*  
*1122K*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T9140

LIMS ID: 97-17599

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/13/97

Sample No: 9738 4915

WR-SD-SD048-1000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.5%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	36
100-01-6	4-Nitroaniline	100 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	210
86-74-8	Carbazole	55 <i>J</i>
120-12-7	Anthracene	54
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	320
129-00-0	Pyrene	320
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	140
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>SL</i>
218-01-9	Chrysene	200
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	170
207-08-9	Benzo(k)fluoranthene	170
50-32-8	Benzo(a)pyrene	240
193-39-5	Indeno(1,2,3-cd)pyrene	130
53-70-3	Dibenz(a,h)anthracene	39
191-24-2	Benzo(g,h,i)perylene	160

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.5%	d5-Phenol	55.4%
2-Fluorobiphenyl	60.4%	2-Fluorophenol	60.8%
d14-p-Terphenyl	65.4%	2,4,6-Tribromophenol	82.7%
d4-1,2-Dichlorobenzene	47.9%	d4-2-Chlorophenol	53.7%

FORM-1

00216

*JMB*  
*1/22/98*  
~~001336~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4915  
WR- SD- SDC 48-1000  
Lab Sample ID: T9140 QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17599 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/19/97  
Date Received: 09/24/97  
Data Release Authorized: *JMB*  
Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.48	SVOA	190 J N
2. --	Unknown_Organic_Acid_____	11.60	SVOA	400 J N
3. --	Unknown_Organic_Acid_____	16.71	SVOA	160 J N
4. --	Unknown_Organic_Acid_____	17.37	SVOA	210 J N
5. --	Unknown_PNA_____	19.30	SVOA	170 J N
6. --	Unknown_____	19.74	SVOA	170 J N
7. --	Unknown_Aromatic_____	20.68	SVOA	290 J N
8. --	Unknown_Aromatic_____	23.44	SVOA	280 J N
9. --	Unknown_Aldehyde_____	24.37	SVOA	240 J N
10. --	Unknown_Alcohol_____	24.74	SVOA	210 J N
11. --	Unknown_____	26.03	SVOA	250 J N
12. --	Unknown_Sterol_type_____	26.25	SVOA	300 J N
13. --	Unknown_Sterol_type_____	27.00	SVOA	180 J N
14. --	Unknown_____	27.47	SVOA	440 J N
15. --	Unknown_Aromatic_____	27.57	SVOA	780 J N
16. --	Unknown_____	27.62	SVOA	440 J N
17. --	Unknown_____	27.75	SVOA	690 J N
18. --	Unknown_____	27.87	SVOA	810 J N
19. --	Unknown_Sterol_type_____	28.03	SVOA	430 J N
20. --	Unknown_Sterol_type_____	28.31	SVOA	370 J N

FORM-1-B

00217

*JMB*  
12/22/97

~~001337~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914P

LIMS ID: 97-17600

Matrix: Sediment

Data Release Authorized: *cmh*

Reported: 11/13/97

Sample No: 9738 4916

WR-SD- SD05Z-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.1%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	600
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	97
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	50
77-47-4	Hexachlorocyclopentadiene	99 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	26
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	66
51-28-5	2,4-Dinitrophenol	200 <i>✓R</i>
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	30
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00218

*JMB*  
11/22/98

~~001336~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914P

LIMS ID: 97-17600

Matrix: Sediment

Data Release Authorized: *ans*

Reported: 11/13/97

Sample No: 9738 4916

WR-SD-SDOSZ-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/23/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.1%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	64
100-01-6	4-Nitroaniline	99 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U J
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U J
85-01-8	Phenanthrene	450
86-74-8	Carbazole	100 J
120-12-7	Anthracene	100
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	780
129-00-0	Pyrene	770
85-68-7	Butylbenzylphthalate	29
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	270
117-81-7	bis(2-Ethylhexyl)phthalate	190 g U
218-01-9	Chrysene	390
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	290
207-08-9	Benzo(k)fluoranthene	320
50-32-8	Benzo(a)pyrene	440
193-39-5	Indeno(1,2,3-cd)pyrene	260
53-70-3	Dibenz(a,h)anthracene	67
191-24-2	Benzo(g,h,i)perylene	320

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.6%	d5-Phenol	59.8%
2-Fluorobiphenyl	63.7%	2-Fluorophenol	67.9%
d14-p-Terphenyl	70.4%	2,4,6-Tribromophenol	83.3%
d4-1,2-Dichlorobenzene	52.2%	d4-2-Chlorophenol	59.7%

FORM-1

00218

001337

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4916

WR- SD- SDOS2-0000

Lab Sample ID: T914P

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17600

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *MB*

Reported: 11/13/97

Date Analyzed: 10/23/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.55	SVOA	510 J N
2. --	Unknown_Organic_Acid_____	11.62	SVOA	490 J N
3. --	Unknown_Organic_Acid_____	16.73	SVOA	340 J N
4. --	Unknown_Aromatic_____	18.38	SVOA	680 J N
5. --	Unknown_Organic_Acid_____	18.51	SVOA	410 J N
6. --	Unknown_____	19.10	SVOA	260 J N
7. --	Unknown_____	19.31	SVOA	230 J N
8. --	Unknown_Alcohol_____	19.63	SVOA	200 J N
9. --	Unknown_____	19.74	SVOA	300 J N
10. --	Unknown_Aromatic_____	20.68	SVOA	330 J N
11. --	Unknown_Aldehyde_____	24.38	SVOA	390 J N
12. --	Unknown_Sterol_type_____	26.27	SVOA	700 J N
13. --	Unknown_Sterol_type_____	26.55	SVOA	300 J N
14. --	Unknown_Sterol_type_____	27.01	SVOA	380 J N
15. --	Unknown_Sterol_type_____	27.44	SVOA	1,400 J N
16. --	Unknown_Aromatic_____	27.58	SVOA	590 J N
17. --	Unknown_____	27.77	SVOA	690 J N
18. --	Unknown_____	27.89	SVOA	1,100 J N
19. --	Unknown_Sterol_type_____	28.05	SVOA	340 J N
20. --	Unknown_Sterol_type_____	28.34	SVOA	550 J N

FORM-1-B

00220

*JMB*  
12/22/97

~~001335~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914Q

LIMS ID: 97-17601

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4917

WR-SD-SD055-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 21.5%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	53
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	27
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	28
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00221

*JMB*  
1/22/99  
001440



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914Q

LIMS ID: 97-17601

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4917

WR-SD-SD055-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 21.5%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	20
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	110
86-74-8	Carbazole	31 <i>J</i>
120-12-7	Anthracene	27
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	250
129-00-0	Pyrene	270
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U <i>J</i>
56-55-3	Benzo(a)anthracene	140
117-81-7	bis(2-Ethylhexyl)phthalate	73 <i>f</i> U
218-01-9	Chrysene	180
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	160
207-08-9	Benzo(k)fluoranthene	140
50-32-8	Benzo(a)pyrene	230
193-39-5	Indeno(1,2,3-cd)pyrene	150
53-70-3	Dibenz(a,h)anthracene	40
191-24-2	Benzo(g,h,i)perylene	190

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.9%	d5-Phenol	63.4%
2-Fluorobiphenyl	64.0%	2-Fluorophenol	55.5%
d14-p-Terphenyl	71.4%	2,4,6-Tribromophenol	78.7%
d4-1,2-Dichlorobenzene	43.2%	d4-2-Chlorophenol	54.4%

FORM-1

00222

001441

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4917

WR-SD-SD055-0000

Lab Sample ID: T914Q

LIMS ID: 97-17601

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *RWB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	11.89	SVOA	120 J N
2.	-- Unknown_Alcohol_____	14.29	SVOA	140 J N
3.	-- Unknown_Aromatic_____	18.73	SVOA	75 J N
4.	-- Unknown_Sterol_type_____	18.82	SVOA	95 J N
5.	-- Unknown_____	20.08	SVOA	150 J N
6.	-- Unknown_Aromatic_____	21.04	SVOA	910 J N
7.	-- Unknown_____	22.31	SVOA	140 J N
8.	-- Unknown_____	23.25	SVOA	160 J N
9.	-- Unknown_Aldehyde_____	24.72	SVOA	140 J N
10.	-- Unknown_C20.H12_PNA_____	25.28	SVOA	110 J N
11.	-- Unknown_Aromatic_____	26.19	SVOA	95 J N
12.	-- Unknown_Sterol_type_____	26.59	SVOA	270 J N
13.	-- Unknown_Sterol_type_____	27.32	SVOA	180 J N
14.	-- Unknown_Sterol_type_____	27.70	SVOA	780 J N
15.	-- Unknown_Aromatic_____	27.86	SVOA	180 J N
16.	-- Unknown_____	28.03	SVOA	320 J N
17.	-- Unknown_Sterol_type_____	28.15	SVOA	480 J N
18.	-- Unknown_____	28.31	SVOA	220 J N
19.	-- Unknown_____	28.47	SVOA	100 J N
20.	-- Unknown_Sterol_type_____	28.58	SVOA	340 J N

FORM-1-B

00223

*JMB*  
12/22/97

~~001443~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914R

LIMS ID: 97-17602

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4919

WR-SD- SD057-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.1%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	62
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	45
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	110
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	52
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00224

001490

*JMB*  
12219



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914R

LIMS ID: 97-17602

Matrix: Sediment

Data Release Authorized: *dkp*

Reported: 11/13/97

Sample No: 9738 4919

WR-SD-SD057-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.1%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	110
100-01-6	4-Nitroaniline	96 U J
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U J
85-01-8	Phenanthrene	440
86-74-8	Carbazole	210 J
120-12-7	Anthracene	210
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	410
129-00-0	Pyrene	370
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U J
56-55-3	Benzo(a)anthracene	160
117-81-7	bis(2-Ethylhexyl)phthalate	120 J U
218-01-9	Chrysene	220
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	170
207-08-9	Benzo(k)fluoranthene	170
50-32-8	Benzo(a)pyrene	230
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	45
191-24-2	Benzo(g,h,i)perylene	170

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	47.2%	d5-Phenol	52.7%
2-Fluorobiphenyl	49.7%	2-Fluorophenol	52.5%
d14-p-Terphenyl	52.5%	2,4,6-Tribromophenol	56.6%
d4-1,2-Dichlorobenzene	42.0%	d4-2-Chlorophenol	49.4%

FORM-1

00225

001491

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4919

WR-SD- SD057-0000

Lab Sample ID: T914R  
LIMS ID: 97-17602  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *DBB*  
Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.68	SVOA	240 J N
2. --	Unknown_Organic_Acid_____	11.93	SVOA	240 J N
3. --	Unknown_Organic_Acid_____	17.73	SVOA	120 J N
4. --	Unknown_Aldehyde_____	18.09	SVOA	140 J N
5. --	Unknown_C15.H12_PNA_____	18.55	SVOA	170 J N
6. --	Unknown_Aromatic_____	20.10	SVOA	170 J N
7. --	Unknown_Aromatic_____	21.03	SVOA	230 J N
8. --	Unknown_Sterol_type_____	23.79	SVOA	180 J N
9. --	Unknown_Aldehyde_____	24.73	SVOA	200 J N
10. --	Unknown_Sterol_type_____	26.60	SVOA	260 J N
11. --	Unknown_Sterol_type_____	26.87	SVOA	140 J N
12. --	Unknown_Sterol_type_____	27.33	SVOA	180 J N
13. --	Unknown_Sterol_type_____	27.72	SVOA	1,200 J N
14. --	Unknown_Aromatic_____	27.87	SVOA	660 J N
15. --	Unknown_____	27.93	SVOA	290 J N
16. --	Unknown_____	28.05	SVOA	500 J N
17. --	Unknown_____	28.16	SVOA	730 J N
18. --	Unknown_Sterol_type_____	28.33	SVOA	320 J N
19. --	Unknown_____	28.49	SVOA	120 J N
20. --	Unknown_Sterol_type_____	28.60	SVOA	360 J N

FORM-1-B

00226

*JMB*  
12/22/97  
~~001492~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914S

LIMS ID: 97-17603

Matrix: Sediment

Data Release Authorized: *BW/S*

Reported: 11/13/97

Sample No: 9738 4921

WR-SD-SD059-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.5%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	300
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	54
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	27
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	73
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	36
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00227

001542 JMK 1227



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914S

LIMS ID: 97-17603

Matrix: Sediment

Data Release Authorized: *RWT*

Reported: 11/13/97

Sample No: 9738 4921

WR-SD- SD059-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.5%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	61
100-01-6	4-Nitroaniline	100 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	270
86-74-8	Carbazole	41 <i>J</i>
120-12-7	Anthracene	55
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	290
129-00-0	Pyrene	250
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U <i>J</i>
56-55-3	Benzo(a)anthracene	100
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>fU</i>
218-01-9	Chrysene	140
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	95
207-08-9	Benzo(k)fluoranthene	93
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	79
53-70-3	Dibenz(a,h)anthracene	25
191-24-2	Benzo(g,h,i)perylene	97

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	44.3%	d5-Phenol	50.3%
2-Fluorobiphenyl	47.1%	2-Fluorophenol	50.4%
d14-p-Terphenyl	49.1%	2,4,6-Tribromophenol	51.0%
d4-1,2-Dichlorobenzene	39.6%	d4-2-Chlorophenol	47.7%

FORM-1

00228

001543 *JML*  
*122k*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4921

WR-SD-SD059-0000

Lab Sample ID: T914S

LIMS ID: 97-17603

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *CRP*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1..	-- Unknown_Organic_Acid_____	6.65	SVOA	240 J N
2.	-- Unknown_Organic_Acid_____	11.93	SVOA	230 J N
3.	-- Unknown_Organic_Acid_____	17.06	SVOA	120 J N
4.	-- Unknown_Organic_Acid_____	17.73	SVOA	140 J N
5.	-- Unknown_Organic_Acid_____	18.82	SVOA	140 J N
6.	-- Unknown_Aromatic_____	20.10	SVOA	220 J N
7.	-- Unknown_Aromatic_____	21.03	SVOA	290 J N
8.	-- Unknown_Aromatic_____	23.78	SVOA	280 J N
9.	-- Unknown_Aldehyde_____	24.73	SVOA	300 J N
10.	-- Unknown_Sterol_type_____	26.60	SVOA	280 J N
11.	-- Unknown_Sterol_type_____	26.87	SVOA	170 J N
12.	-- Unknown_Sterol_type_____	27.33	SVOA	200 J N
13.	-- Unknown_Aromatic_____	27.87	SVOA	810 J N
14.	-- Unknown_____	27.92	SVOA	350 J N
15.	-- Unknown_____	28.05	SVOA	610 J N
16.	-- Unknown_____	28.17	SVOA	900 J N
17.	-- Unknown_Sterol_type_____	28.33	SVOA	370 J N
18.	-- Unknown_____	28.49	SVOA	130 J N
19.	-- Unknown_Sterol_type_____	28.60	SVOA	460 J N
20.	-- Unknown_____	28.87	SVOA	170 J N

FORM-1-B

00229

JMB  
12/22/97  
001544



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914T

LIMS ID: 97-17604

Matrix: Sediment

Data Release Authorized: 045

Reported: 11/13/97

Sample No: 9738 4922

WR-SD- SD058- 0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 27.9%  
pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	50
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	90
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	37
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	45
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	24
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00230

001594  
ML  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914T

LIMS ID: 97-17604

Matrix: Sediment

Data Release Authorized: *AWB*

Reported: 11/13/97

Sample No: 9738 4922

WR-SD-SD058-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 27.9%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	33
100-01-6	4-Nitroaniline	99 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	150
86-74-8	Carbazole	48 <i>J</i>
120-12-7	Anthracene	41
84-74-2	Di-n-Butylphthalate	43
206-44-0	Fluoranthene	340
129-00-0	Pyrene	380
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U <i>J</i>
56-55-3	Benzo(a)anthracene	190
117-81-7	bis(2-Ethylhexyl)phthalate	90 <i>BU</i>
218-01-9	Chrysene	230
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	180
207-08-9	Benzo(k)fluoranthene	220
50-32-8	Benzo(a)pyrene	310
193-39-5	Indeno(1,2,3-cd)pyrene	190
53-70-3	Dibenz(a,h)anthracene	53
191-24-2	Benzo(g,h,i)perylene	240

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	42.4%	d5-Phenol	50.3%
2-Fluorobiphenyl	49.7%	2-Fluorophenol	48.8%
d14-p-Terphenyl	59.9%	2,4,6-Tribromophenol	51.7%
d4-1,2-Dichlorobenzene	36.8%	d4-2-Chlorophenol	46.3%

FORM-1

00231

001595  
1/22/98  
JMB



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4922

WR-SD-SDS8-0000

Lab Sample ID: T914T

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17604

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *JMB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Cycloalkane_____	8.09	SVOA	160 J N
2. --	Unknown_____	18.55	SVOA	150 J N
3. --	Unknown_Cycloalkane_____	18.74	SVOA	380 J N
4. --	Unknown_____	19.00	SVOA	560 J N
5. --	Unknown_____	19.26	SVOA	190 J N
6. --	Unknown_____	19.36	SVOA	190 J N
7. --	Unknown_____	19.48	SVOA	1,400 J N
8. --	Unknown_____	19.66	SVOA	340 J N
9. --	Unknown_____	19.75	SVOA	260 J N
10. --	Unknown_Alcohol_____	20.00	SVOA	94 J N
11. --	Unknown_Aromatic_____	20.16	SVOA	4,100 J N
12. --	Unknown_____	20.21	SVOA	170 J N
13. --	Unknown_____	20.29	SVOA	480 J N
14. --	Unknown_Aromatic_____	21.05	SVOA	880 J N
15. --	Unknown_____	21.70	SVOA	180 J N
16. --	Unknown_Acid_Ester_____	23.26	SVOA	260 J N
17. --	Unknown_Sterol_type_____	27.72	SVOA	600 J N
18. --	Unknown_____	28.04	SVOA	220 J N
19. --	Unknown_____	28.16	SVOA	180 J N
20. --	Unknown_Sterol_type_____	28.60	SVOA	400 J N

FORM-1-B

00232

*JMB*  
12/22/97

001596



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914U

LIMS ID: 97-17605

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/13/97

Sample No: 9738 4924

WR-SD-SD061-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 24.5%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	190
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	40
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	21
77-47-4	Hexachlorocyclopentadiene	94 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	24
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	63
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	38
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00233

001647

*JMB*  
*1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914U

LIMS ID: 97-17605

Matrix: Sediment

Data Release Authorized: *AB*

Reported: 11/13/97

Sample No: 9738 4924

WR-SD- SD061-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nti

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 24.5%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	61
100-01-6	4-Nitroaniline	94 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U <i>J</i>
85-01-8	Phenanthrene	420
86-74-8	Carbazole	77 <i>J</i>
120-12-7	Anthracene	82
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	910
129-00-0	Pyrene	690
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U <i>J</i>
56-55-3	Benzo(a)anthracene	290
117-81-7	bis(2-Ethylhexyl)phthalate	140 <i>PU</i>
218-01-9	Chrysene	380
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	310
207-08-9	Benzo(k)fluoranthene	240
50-32-8	Benzo(a)pyrene	330
193-39-5	Indeno(1,2,3-cd)pyrene	190
53-70-3	Dibenz(a,h)anthracene	65
191-24-2	Benzo(g,h,i)perylene	220

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.7%	d5-Phenol	43.9%
2-Fluorobiphenyl	44.1%	2-Fluorophenol	45.7%
d14-p-Terphenyl	44.8%	2,4,6-Tribromophenol	55.5%
d4-1,2-Dichlorobenzene	37.8%	d4-2-Chlorophenol	42.2%

FORM-1

00234

JMB  
1/22/98

001648



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4924

WR-SD-SD06i-0000

Lab Sample ID: T914U

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17605

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *DMB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.70	SVOA	260 J N
2. --	Unknown_Organic_Acid_____	11.94	SVOA	250 J N
3. --	Unknown_Cycloalkane_____	14.30	SVOA	140 J N
4. --	Unknown_Aldehyde_____	18.10	SVOA	190 J N
5. --	Unknown_____	18.73	SVOA	140 J N
6. --	Unknown_Aromatic_____	20.11	SVOA	160 J N
7. --	Unknown_Aromatic_____	21.04	SVOA	260 J N
8. --	Unknown_Aromatic_____	22.37	SVOA	240 J N
9. --	Unknown_Aromatic_____	23.79	SVOA	180 J N
10. --	Unknown_Aldehyde_____	24.73	SVOA	260 J N
11. --	Unknown_C20.H12_PNA_____	25.29	SVOA	150 J N
12. --	Unknown_Sterol_type_____	26.60	SVOA	290 J N
13. --	Unknown_Sterol_type_____	26.88	SVOA	150 J N
14. --	Unknown_Sterol_type_____	27.34	SVOA	200 J N
15. --	Unknown_Sterol_type_____	27.71	SVOA	840 J N
16. --	Unknown_Aromatic_____	27.87	SVOA	240 J N
17. --	Unknown_____	28.05	SVOA	420 J N
18. --	Unknown_____	28.16	SVOA	620 J N
19. --	Unknown_____	28.32	SVOA	290 J N
20. --	Unknown_Sterol_type_____	28.60	SVOA	300 J N

FORM-1-B

00235

*JMB*  
*12/22/97*  
~~001649~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914V

LIMS ID: 97-17606

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4925

WR-SD- SD060-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.0%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	230
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	160
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	66
77-47-4	Hexachlorocyclopentadiene	99 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	57
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	60
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	33
606-20-2	2,6-Dinitrotoluene	99 U ..

FORM-1

00236

001700 *JM*  
*1122*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914V

LIMS ID: 97-17606

Matrix: Sediment

Data Release Authorized: *001701*

Reported: 11/13/97

Sample No: 9738 4925

WR-SD- SD060-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.0%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	56
100-01-6	4-Nitroaniline	99 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	450
86-74-8	Carbazole	99 <i>J</i>
120-12-7	Anthracene	90
84-74-2	Di-n-Butylphthalate	34
206-44-0	Fluoranthene	790
129-00-0	Pyrene	820
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U <i>J</i>
56-55-3	Benzo(a)anthracene	330
117-81-7	bis(2-Ethylhexyl)phthalate	190 <i>pu</i>
218-01-9	Chrysene	440
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	410
207-08-9	Benzo(k)fluoranthene	340
50-32-8	Benzo(a)pyrene	510
193-39-5	Indeno(1,2,3-cd)pyrene	310
53-70-3	Dibenz(a,h)anthracene	98
191-24-2	Benzo(g,h,i)perylene	400

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.4%	d5-Phenol	67.4%
2-Fluorobiphenyl	65.2%	2-Fluorophenol	69.7%
d14-p-Terphenyl	69.0%	2,4,6-Tribromophenol	81.9%
d4-1,2-Dichlorobenzene	54.9%	d4-2-Chlorophenol	63.6%

FORM-1

00237

001701

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4925

WR- SD- SD060-0000

Lab Sample ID: T914V

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17606

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *MMB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_____	6.65	SVOA	70 J N
2. --	Unknown_Organic_Acid_____	6.75	SVOA	240 J N
3. --	Unknown_Organic_Acid_____	11.95	SVOA	350 J N
4. --	Naphthalene,_Dimethyl_Iso	13.89	SVOA	69 J N
5. --	Unknown_Cycloalkane_____	14.30	SVOA	100 J N
6. --	Unknown_____	16.87	SVOA	120 J N
7. --	Unknown_____	19.21	SVOA	370 J N
8. --	Unknown_____	19.48	SVOA	80 J N
9. --	Unknown_PNA_____	19.67	SVOA	230 J N
10. --	Unknown_Aromatic_____	20.12	SVOA	330 J N
11. --	Unknown_Aromatic_____	21.07	SVOA	1,400 J N
12. --	Unknown_Alcohol_____	21.78	SVOA	1,200 J N
13. --	Unknown_Aldehyde_____	24.75	SVOA	150 J N
14. --	Unknown_____	26.34	SVOA	200 J N
15. --	Unknown_Sterol_type_____	26.61	SVOA	150 J N
16. --	Unknown_Aromatic_____	26.80	SVOA	150 J N
17. --	Unknown_Sterol_type_____	27.73	SVOA	390 J N
18. --	Unknown_____	28.05	SVOA	240 J N
19. --	Unknown_Aromatic_____	28.17	SVOA	280 J N
20. --	Unknown_Sterol_type_____	28.61	SVOA	270 J N

FORM-1-B

00238

*JMB*  
12/22/97

001702



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914W

LIMS ID: 97-17607

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/13/97

Sample No: 9738 4926

*wR-SD- SD066- 0000*

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.8%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	130
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	320
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	180
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	34
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	220
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	57
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00239

*JMK*  
1/22/98  
001754



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914W

LIMS ID: 97-17607

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4926

WR-SD-SD066-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.8%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	120
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	1,000
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	210
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,100
129-00-0	Pyrene	990
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U <i>J</i>
56-55-3	Benz(a)anthracene	360
117-81-7	bis(2-Ethylhexyl)phthalate	88 <i>PU</i>
218-01-9	Chrysene	470
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	300
207-08-9	Benzo(k)fluoranthene	290
50-32-8	Benzo(a)pyrene	410
193-39-5	Indeno(1,2,3-cd)pyrene	220
53-70-3	Dibenz(a,h)anthracene	71
191-24-2	Benzo(g,h,i)perylene	270

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.4%	d5-Phenol	54.0%
2-Fluorobiphenyl	51.9%	2-Fluorophenol	55.4%
d14-p-Terphenyl	60.0%	2,4,6-Tribromophenol	56.1%
d4-1,2-Dichlorobenzene	48.7%	d4-2-Chlorophenol	52.1%

FORM-1

00249

001755

JMB  
1/22/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4926

WR-SD-SD066-OC000

Lab Sample ID: T914W

LIMS ID: 97-17607

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *anf*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Aromatic_____	10.31	SVOA	450 J N
2. --	Unknown_____	11.02	SVOA	620 J N
3. --	Unknown_Cycloalkane_____	11.52	SVOA	530 J N
4. --	Unknown_Cycloalkane_____	11.70	SVOA	840 J N
5. --	Unknown_Cycloalkane_____	11.81	SVOA	670 J N
6. --	Unknown_Aromatic_____	11.90	SVOA	450 J N
7. --	Unknown_____	12.27	SVOA	470 J N
8. --	Unknown_____	12.68	SVOA	600 J N
9. --	Unknown_Cycloalkane_____	12.92	SVOA	500 J N
10. --	Unknown_____	13.94	SVOA	1,300 J N
11. --	Unknown_Cycloalkane_____	14.07	SVOA	440 J N
12. --	Unknown_____	15.76	SVOA	590 J N
13. --	Unknown_____	16.84	SVOA	530 J N
14. --	Unknown_____	17.88	SVOA	460 J N
15. --	Unknown_PNA_____	18.57	SVOA	500 J N
16. --	Unknown_____	18.78	SVOA	790 J N
17. --	Unknown_____	19.25	SVOA	680 J N
18. --	Unknown_____	19.38	SVOA	430 J N
19. --	Unknown_____	27.81	SVOA	480 J N
20. --	Unknown_Aromatic_____	27.90	SVOA	720 J N

FORM-1-B

00241

JMB  
12/22/97  
001756



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914X

LIMS ID: 97-17608

Matrix: Sediment

Data Release Authorized: MRP

Reported: 11/13/97

Sample No: 9738 4927

WR-SD- SD071-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.1%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	290
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	36
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00242

001806

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914X

LIMS ID: 97-17608

Matrix: Sediment

Data Release Authorized: *MBR*

Reported: 11/13/97

Sample No: 9738 4927

WR-SD-SD071-600C

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.1%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	60
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	110
129-00-0	Pyrene	87
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U <i>J</i>
56-55-3	Benzo(a)anthracene	40
117-81-7	bis(2-Ethylhexyl)phthalate	93 <i>S</i> U
218-01-9	Chrysene	56
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	44
207-08-9	Benzo(k)fluoranthene	39
50-32-8	Benzo(a)pyrene	40
193-39-5	Indeno(1,2,3-cd)pyrene	22
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	28

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	42.3%	d5-Phenol	49.2%
2-Fluorobiphenyl	49.0%	2-Fluorophenol	48.1%
d14-p-Terphenyl	59.9%	2,4,6-Tribromophenol	68.1%
d4-1,2-Dichlorobenzene	36.2%	d4-2-Chlorophenol	44.9%

FORM-1

00243

001807

*MB  
1/22/99*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4927  
WR-SD-SD071-0000  
Lab Sample ID: T914X QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17608 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *AW*  
Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.72	SVOA	380 J N
2. --	Unknown_Organic_Acid_____	6.99	SVOA	80 J N
3. --	Unknown_Ketone_____	10.02	SVOA	140 J N
4. --	Unknown_Organic_Acid_____	11.96	SVOA	360 J N
5. --	Unknown_Cycloalkane_____	16.89	SVOA	110 J N
6. --	Unknown_Organic_Acid_____	17.07	SVOA	130 J N
7. --	Unknown_Organic_Acid_____	17.74	SVOA	95 J N
8. --	Unknown_____	19.20	SVOA	260 J N
9. --	Unknown_Alcohol_____	20.00	SVOA	150 J N
10. --	Unknown_____	20.10	SVOA	230 J N
11. --	Unknown_Aromatic_____	21.04	SVOA	740 J N
12. --	Unknown_Aromatic_____	23.78	SVOA	370 J N
13. --	Unknown_Sterol_type_____	26.60	SVOA	350 J N
14. --	Unknown_Sterol_type_____	27.34	SVOA	220 J N
15. --	Unknown_____	27.87	SVOA	370 J N
16. --	Unknown_____	28.05	SVOA	680 J N
17. --	Unknown_Sterol_type_____	28.16	SVOA	990 J N
18. --	Unknown_Aromatic_____	28.34	SVOA	480 J N
19. --	Unknown_____	28.50	SVOA	180 J N
20. --	Unknown_Sterol_type_____	28.61	SVOA	480 J N

FORM-1-B

00244

JMB  
12/22/97  
001808



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914Y

LIMS ID: 97-17609

Matrix: Sediment

Data Release Authorized: *OKB*

Reported: 11/13/97

Sample No: 9738 4928

WR-SD- SD073-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.8%

pH: 6.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	320
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	24
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00245

001851

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914Y

LIMS ID: 97-17609

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4928

WR-SD-SD073-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.8%

pH: 6.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	54
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	71
129-00-0	Pyrene	57
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U <i>J</i>
56-55-3	Benzo(a)anthracene	24
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>PU</i>
218-01-9	Chrysene	36
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	25
207-08-9	Benzo(k)fluoranthene	28
50-32-8	Benzo(a)pyrene	24
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	39.9%	d5-Phenol	43.5%
2-Fluorobiphenyl	43.8%	2-Fluorophenol	44.2%
d14-p-Terphenyl	48.2%	2,4,6-Tribromophenol	52.4%
d4-1,2-Dichlorobenzene	35.6%	d4-2-Chlorophenol	40.2%

FORM-1  
00246

001352 JMB 1/22/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4928

WR-SD-SD073-0000

Lab Sample ID: T914Y

LIMS ID: 97-17609

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *ONB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid	6.80	SVOA	390 J N
2.	-- Unknown_Organic_Acid	7.07	SVOA	90 J N
3.	-- Unknown_Organic_Acid	11.98	SVOA	400 J N
4.	-- Unknown_Cycloalkane	14.31	SVOA	130 J N
5.	19407-28-4 Phenanthrene,_1,2,3,4,4a,	19.78	SVOA	190 J N
6.	-- Unknown	20.10	SVOA	280 J N
7.	-- Unknown_Aromatic	21.04	SVOA	470 J N
8.	-- Unknown	22.34	SVOA	250 J N
9.	-- Unknown_Aldehyde	23.52	SVOA	260 J N
10.	-- Unknown_Aromatic	23.79	SVOA	330 J N
11.	-- Unknown_Sterol_type	25.11	SVOA	300 J N
12.	-- Unknown_Aldehyde	25.86	SVOA	200 J N
13.	-- Unknown_Sterol_type	26.60	SVOA	260 J N
14.	-- Unknown_Sterol_type	27.73	SVOA	1,000 J N
15.	-- Unknown_Aromatic	27.88	SVOA	1,400 J N
16.	-- Unknown	28.05	SVOA	1,000 J N
17.	-- Unknown	28.17	SVOA	1,400 J N
18.	-- Unknown	28.34	SVOA	580 J N
19.	-- Unknown	28.50	SVOA	260 J N
20.	-- Unknown_Sterol_type	28.61	SVOA	540 J N

FORM-1-B

00247

*JMB*  
12/22/97  
~~001853~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914Z

LIMS ID: 97-17610

Matrix: Sediment

Data Release Authorized: ~~✓~~

Reported: 11/13/97

Sample No: 9738 4929

WR-SD-SD076-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.2%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	490
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00248

001393

JME  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914Z

LIMS ID: 97-17610

Matrix: Sediment

Data Release Authorized: *WR*

Reported: 11/13/97

Sample No: 9738 4929

WR-SD-SD076-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.2%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U J
85-01-8	Phenanthrene	42
86-74-8	Carbazole	20 U J
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	74
129-00-0	Pyrene	61
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U J
56-55-3	Benzo(a)anthracene	26
117-81-7	bis(2-Ethylhexyl)phthalate	140 μU
218-01-9	Chrysene	40
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	25
207-08-9	Benzo(k)fluoranthene	31
50-32-8	Benzo(a)pyrene	26
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	36.2%	d5-Phenol	41.3%
2-Fluorobiphenyl	42.0%	2-Fluorophenol	42.5%
d14-p-Terphenyl	51.0%	2,4,6-Tribromophenol	57.1%
d4-1,2-Dichlorobenzene	31.2%	d4-2-Chlorophenol	38.1%

FORM-1

00249

001894

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4929

WR-SD-SD076-0000

Lab Sample ID: T914Z

LIMS ID: 97-17610

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *AWB*

Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.64	SVOA	280 JN
2. --	Unknown_Organic_Acid_____	6.89	SVOA	600 JN
3. --	Unknown_Organic_Acid_____	7.13	SVOA	180 JN
4. --	Unknown_Organic_Acid_____	12.00	SVOA	620 JN
5. --	Unknown_Organic_Acid_____	17.08	SVOA	150 JN
6. --	Unknown_____	19.20	SVOA	280 JN
7. --	Unknown_Alcohol_____	19.67	SVOA	300 JN
8. --	Unknown_Aromatic_____	20.11	SVOA	270 JN
9. --	Unknown_Aromatic_____	21.04	SVOA	450 JN
10. --	Unknown_Aromatic_____	23.79	SVOA	470 JN
11. --	Unknown_Sterol_type_____	25.10	SVOA	300 JN
12. --	Unknown_Sterol_type_____	26.61	SVOA	410 JN
13. --	Unknown_Sterol_type_____	26.66	SVOA	280 JN
14. --	Unknown_Sterol_type_____	27.20	SVOA	380 JN
15. --	Unknown_Aromatic_____	27.88	SVOA	500 JN
16. --	Unknown_____	28.05	SVOA	840 JN
17. --	Unknown_____	28.17	SVOA	1,100 JN
18. --	Unknown_____	28.33	SVOA	490 JN
19. --	Unknown_____	28.50	SVOA	220 JN
20. --	Unknown_Sterol_type_____	28.61	SVOA	500 JN

FORM-1-B

00250

*JMB*  
*12/22/97*  
~~001395~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AA

LIMS ID: 97-17611

Matrix: Sediment

Data Release Authorized: *yes*

Reported: 11/13/97

Sample No: 9738 4930

WR-SD- SD074- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.0%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	560
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	31
106-47-8	4-Chloroaniline	60 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	47
77-47-4	Hexachlorocyclopentadiene	100 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	47
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

0025:

JMB  
001036 1/22/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AA

LIMS ID: 97-17611

Matrix: Sediment

Data Release Authorized: *6WIS*

Reported: 11/13/97

Sample No: 9738 4930

WR-SD-SD074-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/28/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.0%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	55
100-01-6	4-Nitroaniline	100 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	350
86-74-8	Carbazole	54 <i>J</i>
120-12-7	Anthracene	60
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	210
129-00-0	Pyrene	290
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U <i>J</i>
56-55-3	Benzo(a)anthracene	180
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>B</i> U
218-01-9	Chrysene	270
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	91
207-08-9	Benzo(k)fluoranthene	98
50-32-8	Benzo(a)pyrene	160
193-39-5	Indeno(1,2,3-cd)pyrene	57
53-70-3	Dibenz(a,h)anthracene	26
191-24-2	Benzo(g,h,i)perylene	82

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	46.2%	d5-Phenol	51.5%
2-Fluorobiphenyl	53.4%	2-Fluorophenol	52.3%
d14-p-Terphenyl	56.2%	2,4,6-Tribromophenol	64.3%
d4-1,2-Dichlorobenzene	40.2%	d4-2-Chlorophenol	47.9%

FORM-1

00253

001937  
1/22/94  
JMK



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4930  
WR- SD- SD074-0000

Lab Sample ID: T914AA  
LIMS ID: 97-17611  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *MB*  
Reported: 11/13/97

Date Analyzed: 10/28/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	6.67	SVOA	360 J N
2.	-- Unknown_Organic_Acid_____	6.94	SVOA	420 J N
3.	-- Unknown_Organic_Acid_____	12.01	SVOA	690 J N
4.	-- Unknown_Cycloalkane_____	14.31	SVOA	170 J N
5.	-- Unknown_C15.H12_PNA_____	18.57	SVOA	290 J N
6.	-- Unknown_Aromatic_____	18.74	SVOA	160 J N
7.	-- Unknown_C16.H14_PNA_____	19.67	SVOA	220 J N
8.	-- Unknown_Aromatic_____	21.05	SVOA	360 J N
9.	-- Unknown_C19.H14_PNA_____	23.62	SVOA	230 J N
10.	-- Unknown_Aromatic_____	23.80	SVOA	300 J N
11.	-- Unknown_Aldehyde_____	24.75	SVOA	440 J N
12.	-- Unknown_Sterol_type_____	26.61	SVOA	230 J N
13.	-- Unknown_Aromatic_____	27.34	SVOA	210 J N
14.	-- Unknown_____	27.79	SVOA	330 J N
15.	-- Unknown_____	27.88	SVOA	460 J N
16.	-- Unknown_____	28.06	SVOA	660 J N
17.	-- Unknown_Sterol_type_____	28.18	SVOA	870 J N
18.	-- Unknown_____	28.34	SVOA	420 J N
19.	-- Unknown_____	28.51	SVOA	170 J N
20.	-- Unknown_Sterol_type_____	28.62	SVOA	390 J N

*JMB*  
*12/22/97*  
*001935*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AB

LIMS ID: 97-17612

Matrix: Sediment

Data Release Authorized: *BNP*

Reported: 11/13/97

Sample No: 9738 4933

WR-SD- SD062-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 51.4%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	200 U
111-44-4	Bis-(2-Chloroethyl) Ether	390 U
95-57-8	2-Chlorophenol	200 U
541-73-1	1,3-Dichlorobenzene	200 U
106-46-7	1,4-Dichlorobenzene	200 U
100-51-6	Benzyl Alcohol	200 U
95-50-1	1,2-Dichlorobenzene	200 U
95-48-7	2-Methylphenol	200 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	200 U
106-44-5	4-Methylphenol	200 U
621-64-7	N-Nitroso-Di-N-Propylamine	390 U
67-72-1	Hexachloroethane	200 U
98-95-3	Nitrobenzene	200 U
78-59-1	Isophorone	200 U
88-75-5	2-Nitrophenol	980 U
105-67-9	2,4-Dimethylphenol	200 U
65-85-0	Benzoic Acid	2,000 U
111-91-1	bis(2-Chloroethoxy) Methane	200 U
120-83-2	2,4-Dichlorophenol	590 U
120-82-1	1,2,4-Trichlorobenzene	200 U
91-20-3	Naphthalene	1,900
106-47-8	4-Chloroaniline	590 U
87-68-3	Hexachlorobutadiene	200 U
59-50-7	4-Chloro-3-methylphenol	390 U
91-57-6	2-Methylnaphthalene	20,000 E- 180 00 D
77-47-4	Hexachlorocyclopentadiene	980 U
88-06-2	2,4,6-Trichlorophenol	980 U
95-95-4	2,4,5-Trichlorophenol	980 U
91-58-7	2-Chloronaphthalene	200 U
88-74-4	2-Nitroaniline	980 U
131-11-3	Dimethylphthalate	200 U
208-96-8	Acenaphthylene	560
99-09-2	3-Nitroaniline	1,200 U
83-32-9	Acenaphthene	15,000
51-28-5	2,4-Dinitrophenol	2,000 U
100-02-7	4-Nitrophenol	980 U
132-64-9	Dibenzofuran	2,600
606-20-2	2,6-Dinitrotoluene	980 U

FORM-1

00254

001937 JME  
1/22k



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AB

LIMS ID: 97-17612

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4933

WR-SD-SD062-6000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 51.4%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	980 U
84-66-2	Diethylphthalate	200 U
7005-72-3	4-Chlorophenyl-phenylether	200 U
86-73-7	Fluorene	20,000 <i>E D</i>
100-01-6	4-Nitroaniline	980 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,000 U
86-30-6	N-Nitrosodiphenylamine	200 U
101-55-3	4-Bromophenyl-phenylether	200 U
118-74-1	Hexachlorobenzene	200 U
87-86-5	Pentachlorophenol	980 U <i>J</i>
85-01-8	Phenanthrene	39,000 <i>E</i> 150000 D
86-74-8	Carbazole	8,400 <i>J</i>
120-12-7	Anthracene	19,000 <i>E</i> 24000 D
84-74-2	Di-n-Butylphthalate	200 U
206-44-0	Fluoranthene	36,000 <i>E</i> 47000 D
129-00-0	Pyrene	79,000 <i>E</i> 140000 D
85-68-7	Butylbenzylphthalate	200 U
91-94-1	3,3'-Dichlorobenzidine	980 U
56-55-3	Benzo(a)anthracene	56,000 <i>E</i> 72000 D
117-81-7	bis(2-Ethylhexyl)phthalate	210 <i>E</i> U
218-01-9	Chrysene	66,000 <i>E</i> 100000 D
117-84-0	Di-n-Octyl phthalate	200 U
205-99-2	Benzo(b)fluoranthene	28,000 <i>E</i> 33000 D
207-08-9	Benzo(k)fluoranthene	14,000
50-32-8	Benzo(a)pyrene	47,000 <i>E</i> 57000 D
193-39-5	Indeno(1,2,3-cd)pyrene	12,000
53-70-3	Dibenz(a,h)anthracene	9,200
191-24-2	Benzo(g,h,i)perylene	19,000 <i>E</i> 40000 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.0%	d5-Phenol	36.8%
2-Fluorobiphenyl	38.8%	2-Fluorophenol	35.5%
d14-p-Terphenyl	61.2%	2,4,6-Tribromophenol	41.1%
d4-1,2-Dichlorobenzene	36.0%	d4-2-Chlorophenol	36.8%

FORM-1

00-55

*JMB*  
*1/22/99*  
~~001988~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T914AB  
LIMS ID: 97-17612  
Matrix: Sediment

Sample No: 9738 4933  
WR- SD- SD062- 0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *MB*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Naphthalene,_Dimethyl_Iso	13.68	SVOA	16,000 J N
2.	-- Naphthalene,_Dimethyl_Iso	13.85	SVOA	24,000 J N
3.	-- Naphthalene,_Trimethyl_Is	15.21	SVOA	13,000 J N
4. 132-65-0	Dibenzothiophene_____	17.23	SVOA	13,000 J N
5.	-- Unknown_C15.H12_PNA_____	18.49	SVOA	25,000 J N
6.	-- Unknown_C15.H12_PNA_____	18.57	SVOA	23,000 J N
7.	-- Unknown_C15.H12_PNA_____	18.72	SVOA	24,000 J N
8.	-- Unknown_C16.H14_PNA_____	19.49	SVOA	22,000 J N
9.	-- Unknown_Aromatic_____	19.64	SVOA	15,000 J N
10.	-- Unknown_C17.H12_PNA_____	21.06	SVOA	23,000 J N
11.	-- Unknown_C17.H12_PNA_____	21.19	SVOA	11,000 J N
12.	-- Unknown_C17.H12_PNA_____	21.28	SVOA	25,000 J N
13.	-- Unknown_C17.H12_PNA_____	21.45	SVOA	13,000 J N
14.	-- Unknown_C17.H12_PNA_____	21.50	SVOA	12,000 J N
15.	-- Unknown_C18.H14_PNA_____	21.90	SVOA	13,000 J N
16.	-- Unknown_PNA_____	22.10	SVOA	11,000 J N
17.	-- Unknown_C19.H14_PNA_____	23.63	SVOA	30,000 J N
18.	-- Unknown_C19.H14_PNA_____	23.70	SVOA	15,000 J N
19.	-- Unknown_C19.H14_PNA_____	23.76	SVOA	15,000 J N
20.	-- Unknown_C19.H14_PNA_____	23.86	SVOA	14,000 J N

FORM-1-B

00256

*JMB*  
*12/22/97*

*001339*

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AB

LIMS ID: 97-17612

Matrix: Sediment

Data Release Authorized: *OKH*

Reported: 11/13/97



Sample No: 9738 4933

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:100  
Percent Moisture: 51.4%  
pH: 6.7

CAS Number	Analyte	ng/kg
108-95-2	Phenol	2,000 U
111-44-4	Bis-(2-Chloroethyl) Ether	3,900 U
95-57-8	2-Chlorophenol	2,000 U
541-73-1	1,3-Dichlorobenzene	2,000 U
106-46-7	1,4-Dichlorobenzene	2,000 U
100-51-6	Benzyl Alcohol	2,000 U
95-50-1	1,2-Dichlorobenzene	2,000 U
95-48-7	2-Methylphenol	2,000 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	2,000 U
106-44-5	4-Methylphenol	2,000 U
621-64-7	N-Nitroso-Di-N-Propylamine	3,900 U
67-72-1	Hexachloroethane	2,000 U
98-95-3	Nitrobenzene	2,000 U
78-59-1	Isophorone	2,000 U
88-75-5	2-Nitrophenol	9,800 U
105-67-9	2,4-Dimethylphenol	2,000 U
65-85-0	Benzoic Acid	20,000 U
111-91-1	bis(2-Chloroethoxy) Methane	2,000 U
120-83-2	2,4-Dichlorophenol	5,900 U
120-82-1	1,2,4-Trichlorobenzene	2,000 U
91-20-3	Naphthalene	2,700
106-47-8	4-Chloraniline	5,900 U
87-68-3	Hexachlorobutadiene	2,000 U
59-50-7	4-Chloro-3-methylphenol	3,900 U
91-57-6	2-Methylnaphthalene	18,000
77-47-4	Hexachlorocyclopentadiene	9,800 U
88-06-2	2,4,6-Trichlorophenol	9,800 U
95-95-4	2,4,5-Trichlorophenol	9,800 U
91-58-7	2-Chloronaphthalene	2,000 U
88-74-4	2-Nitroaniline	9,800 U
131-11-3	Dimethylphthalate	2,000 U
208-96-8	Acenaphthylene	2,000 U
99-09-2	3-Nitroaniline	12,000 U
83-32-9	Acenaphthene	17,000
51-28-5	2,4-Dinitrophenol	20,000 U
100-02-7	4-Nitrophenol	9,800 U
132-64-9	Dibenzofuran	3,000
606-20-2	2,6-Dinitrotoluene	9,800 U

FORM-1

00257

002347 1121 MB



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AB

LIMS ID: 97-17612

Matrix: Sediment

Data Release Authorized: *gwb*

Reported: 11/13/97

Sample No: 9738 4933

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:100

Percent Moisture: 51.4%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	9,800 U
84-66-2	Diethylphthalate	2,000 U
7005-72-3	4-Chlorophenyl-phenylether	2,000 U
86-73-7	Fluorene	20,000
100-01-6	4-Nitroaniline	9,800 U
534-52-1	4,6-Dinitro-2-Methylphenol	20,000 U
86-30-6	N-Nitrosodiphenylamine	2,000 U
101-55-3	4-Bromophenyl-phenylether	2,000 U
118-74-1	Hexachlorobenzene	2,000 U
87-86-5	Pentachlorophenol	9,800 U
85-01-8	Phenanthrene	150,000
86-74-8	Carbazole	8,500 J
120-12-7	Anthracene	24,000
84-74-2	Di-n-Butylphthalate	2,000 U
206-44-0	Fluoranthene	47,000
129-00-0	Pyrene	140,000
85-68-7	Butylbenzylphthalate	2,000 U
91-94-1	3,3'-Dichlorobenzidine	9,800 U
56-55-3	Benzo(a)anthracene	72,000
117-81-7	bis(2-Ethylhexyl)phthalate	2,000 U
218-01-9	Chrysene	100,000
117-84-0	Di-n-Octyl phthalate	2,000 U
205-99-2	Benzo(b)fluoranthene	33,000
207-08-9	Benzo(k)fluoranthene	20,000
50-32-8	Benzo(a)pyrene	57,000
193-39-5	Indeno(1,2,3-cd)pyrene	24,000
53-70-3	Dibenz(a,h)anthracene	13,000
191-24-2	Benzo(g,h,i)perylene	40,000

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00258

002041 JML  
1/22/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4933  
DILUTION  
Lab Sample ID: T914AB QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17612 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *anr*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Naphthalene,_Dimethyl_Iso	13.65	SVOA	27,000 J
2. ---	Naphthalene,_Dimethyl_Iso	13.82	SVOA	42,000 J
3. ---	Naphthalene,_Dimethyl_Iso	14.04	SVOA	17,000 J
4. ---	Unknown_Aromatic	14.70	SVOA	17,000 J
5. ---	Naphthalene,_Trimethyl_Is	14.94	SVOA	21,000 J
6. ---	Naphthalene,_Trimethyl_Is	15.19	SVOA	23,000 J
7. ---	Unknown	15.91	SVOA	18,000 J
8. ---	Unknown_C15.H12_PNA	18.44	SVOA	22,000 J
9. ---	Unknown_C15.H12_PNA	18.50	SVOA	35,000 J
10. ---	Unknown_C15.H12_PNA	18.67	SVOA	25,000 J
11. ---	Unknown_C16.H14_PNA	19.43	SVOA	25,000 J
12. ---	Unknown_C16.H14_PNA	19.59	SVOA	17,000 J
13. ---	Unknown_C17.H12_PNA	20.99	SVOA	22,000 J
14. ---	Unknown_C17.H12_PNA	21.19	SVOA	20,000 J
15. ---	Unknown_PNA	21.84	SVOA	19,000 J
16. ---	Unknown_PNA	22.04	SVOA	15,000 J
17. ---	Unknown_C19.H14_PNA	23.53	SVOA	36,000 J
18. ---	Unknown_C19.H14_PNA	23.61	SVOA	20,000 J
19. ---	Unknown_C19.H14_PNA	23.69	SVOA	22,000 J
20. ---	Unknown	23.78	SVOA	43,000 J



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AC

LIMS ID: 97-17613

Matrix: Sediment

Data Release Authorized: *JWR*

Reported: 11/13/97

Sample No: 9738 4934

WR-SD-SD063-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	200
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	1,200
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	680
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	370
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	2,600 <i>AD</i>
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	530
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00260

002330

*JMB*  
*1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AC

LIMS ID: 97-17613

Matrix: Sediment

Data Release Authorized: *BWB*

Reported: 11/13/97

Sample No: 9738 4934

WR-SD-SD063-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	2,500 E 2400 D
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	10,000 E 17000 D
86-74-8	Carbazole	260 J
120-12-7	Anthracene	2,900 E 3400 D
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	6,500 E 11000 D
129-00-0	Pyrene	10,000 E 18000 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	3,900 E 4000 D
117-81-7	bis(2-Ethylhexyl)phthalate	130 E U
218-01-9	Chrysene	4,700 E 5600 D
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	4,000 E 3100 D
207-08-9	Benzo(k)fluoranthene	2,400 E 3200 D
50-32-8	Benzo(a)pyrene	5,100 E D
193-39-5	Indeno(1,2,3-cd)pyrene	2,600 E 3000 D
53-70-3	Dibenz(a,h)anthracene	1,000
191-24-2	Benzo(g,h,i)perylene	3,300 E 3600 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	39.1%	d5-Phenol	42.7%
2-Fluorobiphenyl	41.6%	2-Fluorophenol	41.9%
d14-p-Terphenyl	72.5%	2,4,6-Tribromophenol	48.5%
d4-1,2-Dichlorobenzene	37.3%	d4-2-Chlorophenol	41.0%

FORM-1

00261

JMB  
1/22/99

00261



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4934

WR-SD-SD063-0000

Lab Sample ID: T914AC

LIMS ID: 97-17613

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: ONC

Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.64	SVOA	1,100 JN
2. --	Naphthalene,_Ethyl_Isomer	13.55	SVOA	520 JN
3. --	Naphthalene,_Dimethyl_Iso	13.69	SVOA	1,200 JN
4. --	Naphthalene,_Dimethyl_Iso	13.86	SVOA	1,800 JN
5. 2027-17-0	Naphthalene,_2-(1-methyle	14.73	SVOA	570 JN
6. --	Naphthalene,_Trimethyl_Is	14.97	SVOA	480 JN
7. --	Naphthalene,_Trimethyl_Is	15.03	SVOA	700 JN
8. --	Naphthalene,_Trimethyl_Is	15.23	SVOA	970 JN
9. --	Naphthalene,_Trimethyl_Is	15.39	SVOA	540 JN
10. --	Unknown_	15.96	SVOA	1,300 JN
11. 132-65-0	Dibenzothiophene_____	17.27	SVOA	930 JN
12. --	Unknown_____	18.14	SVOA	680 JN
13. --	Unknown_C15.H12_PNA_____	18.52	SVOA	840 JN
14. --	Unknown_C15.H12_PNA_____	18.60	SVOA	860 JN
15. --	Unknown_PNA_____	18.76	SVOA	1,100 JN
16. --	Unknown_C16.H12_PNA_____	19.12	SVOA	610 JN
17. --	Unknown_C16.H14_PNA_____	19.42	SVOA	580 JN
18. --	Unknown_C16.H14_PNA_____	19.52	SVOA	720 JN
19. --	Unknown_C16.H14_PNA_____	19.67	SVOA	790 JN
20. --	Unknown_Aromatic_____	21.06	SVOA	620 JN

FORM-1-B

00262

JMB  
12/22/97

002632

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AC  
LIMS ID: 97-17613

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4934  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:20  
Percent Moisture: 48.6%  
pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	390 U
111-44-4	Bis-(2-Chloroethyl) Ether	780 U
95-57-8	2-Chlorophenol	390 U
541-73-1	1,3-Dichlorobenzene	390 U
106-46-7	1,4-Dichlorobenzene	390 U
100-51-6	Benzyl Alcohol	390 U
95-50-1	1,2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	390 U
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-Di-N-Propylamine	780 U
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	1,900 U
105-67-9	2,4-Dimethylphenol	390 U
65-85-0	Benzoic Acid	3,900 U
111-91-1	bis(2-Chloroethoxy) Methane	390 U
120-83-2	2,4-Dichlorophenol	1,200 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	960
106-47-8	4-Chloroaniline	1,200 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-methylphenol	780 U
91-57-6	2-Methylnaphthalene	440
77-47-4	Hexachlorocyclopentadiene	1,900 U
88-06-2	2,4,6-Trichlorophenol	1,900 U
95-95-4	2,4,5-Trichlorophenol	1,900 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	1,900 U
131-11-3	Dimethylphthalate	390 U
208-96-8	Acenaphthylene	390 U
99-09-2	3-Nitroaniline	2,300 U
83-32-9	Acenaphthene	2,600
51-28-5	2,4-Dinitrophenol	3,900 U
100-02-7	4-Nitrophenol	1,900 U
132-64-9	Dibenzofuran	470
606-20-2	2,6-Dinitrotoluene	1,900 U

FORM-1

00263

ANALYTICAL  
RESOURCES  
INCORPORATED

*JMB*  
1/22/94

002143

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AC

LIMS ID: 97-17613

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/13/97



Sample No: 9738 4934

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:20

Percent Moisture: 48.6%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	1,900 U
84-66-2	Diethylphthalate	390 U
7005-72-3	4-Chlorophenyl-phenylether	390 U
86-73-7	Fluorene	2,400
100-01-6	4-Nitroaniline	1,900 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,900 U
86-30-6	N-Nitrosodiphenylamine	390 U
101-55-3	4-Bromophenyl-phenylether	390 U
118-74-1	Hexachlorobenzene	390 U
87-86-5	Pentachlorophenol	1,900 U
85-01-8	Phenanthrene	17,000
86-74-8	Carbazole	390 U
120-12-7	Anthracene	3,400
84-74-2	Di-n-Butylphthalate	390 U
206-44-0	Fluoranthene	11,000
129-00-0	Pyrene	18,000
85-68-7	Butylbenzylphthalate	390 U
91-94-1	3,3'-Dichlorobenzidine	1,900 U
56-55-3	Benzo(a)anthracene	4,000
117-81-7	bis(2-Ethylhexyl)phthalate	390 U
218-01-9	Chrysene	5,600
117-84-0	Di-n-Octyl phthalate	390 U
205-99-2	Benzo(b)fluoranthene	3,100
207-08-9	Benzo(k)fluoranthene	3,200
50-32-8	Benzo(a)pyrene	5,100
193-39-5	Indeno(1,2,3-cd)pyrene	3,000
53-70-3	Dibenz(a,h)anthracene	780
191-24-2	Benzo(g,h,i)perylene	3,600

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	24.8%	d5-Phenol	40.0%
2-Fluorobiphenyl	34.4%	2-Fluorophenol	39.5%
d14-p-Terphenyl	60.8%	2,4,6-Tribromophenol	42.1%
d4-1,2-Dichlorobenzene	47.2%	d4-2-Chlorophenol	37.9%

FORM-1

00264

ANALYTICAL  
RESOURCES  
INCORPORATED

JMB  
12214

002144



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T914AC      Sample No: 9738 4934  
LIMS ID: 97-17613      QC Report No: T914-Roy F. Weston  
Matrix: Sediment      Project: 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: CRB  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.60	SVOA	2,000 J N
2. ---	Naphthalene,_Dimethyl_Iso	13.65	SVOA	2,600 J N
3. ---	Naphthalene,_Dimethyl_Iso	13.81	SVOA	4,000 J
4. ---	Naphthalene,_Trimethyl_Is	14.98	SVOA	1,400 J
5. ---	Naphthalene,_Trimethyl_Is	15.18	SVOA	2,100 J
6. ---	Unknown_C14.H12_PNA	16.84	SVOA	1,800 J V
7. 132-65-0	Dibenzothiophene	17.19	SVOA	2,000 J N
8. ---	Unknown_Aromatic	18.08	SVOA	2,000 J N
9. ---	Unknown_C15.H12_PNA	18.43	SVOA	2,700 J
10. ---	Unknown_C15.H12_PNA	18.48	SVOA	3,700 J
11. ---	Unknown_PNA	18.66	SVOA	5,200 J
12. ---	Unknown_C16.H12_PNA	19.04	SVOA	1,400 J
13. ---	Unknown_C16.H14_PNA	19.34	SVOA	1,900 J
14. ---	Unknown_C16.H14_PNA	19.42	SVOA	2,300 J
15. ---	Unknown_C16.H14_PNA	19.58	SVOA	2,700 J
16. ---	Unknown_C16.H14_PNA	19.63	SVOA	1,400 J
17. ---	Unknown_Aromatic	20.96	SVOA	3,800 J
18. ---	Unknown_C17.H12_PNA	21.17	SVOA	1,500 J
19. ---	Unknown_C22.H12_PNA	27.65	SVOA	1,700 J
20. ---	Unknown_Aromatic	27.75	SVOA	1,400 J

FORM-1-B

00265

JMB  
12219

002145



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AD

LIMS ID: 97-17614

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/13/97

Sample No: 9738 4935

WR-SD-SD064-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 53.2%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	190 U
111-44-4	Bis-(2-Chloroethyl) Ether	390 U
95-57-8	2-Chlorophenol	190 U
541-73-1	1,3-Dichlorobenzene	190 U
106-46-7	1,4-Dichlorobenzene	190 U
100-51-6	Benzyl Alcohol	190 U
95-50-1	1,2-Dichlorobenzene	190 U
95-48-7	2-Methylphenol	190 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	190 U
106-44-5	4-Methylphenol	190 U
621-64-7	N-Nitroso-Di-N-Propylamine	390 U
67-72-1	Hexachloroethane	190 U
98-95-3	Nitrobenzene	190 U
78-59-1	Isophorone	190 U
88-75-5	2-Nitrophenol	970 U
105-67-9	2,4-Dimethylphenol	190 U
65-85-0	Benzoic Acid	1,900 U
111-91-1	bis(2-Chloroethoxy) Methane	190 U
120-83-2	2,4-Dichlorophenol	580 U
120-82-1	1,2,4-Trichlorobenzene	190 U
91-20-3	Naphthalene	77,000 <del>U</del> 13000 D
106-47-8	4-Chloroaniline	580 U
87-68-3	Hexachlorobutadiene	190 U
59-50-7	4-Chloro-3-methylphenol	390 U
91-57-6	2-Methylnaphthalene	37,000 <del>U</del> 44000 D
77-47-4	Hexachlorocyclopentadiene	970 U
88-06-2	2,4,6-Trichlorophenol	970 U
95-95-4	2,4,5-Trichlorophenol	970 U
91-58-7	2-Chloronaphthalene	190 U
88-74-4	2-Nitroaniline	970 U
131-11-3	Dimethylphthalate	190 U
208-96-8	Acenaphthylene	3,400
99-09-2	3-Nitroaniline	1,200 U
83-32-9	Acenaphthene	31,000 <del>U</del> 51000 D
51-28-5	2,4-Dinitrophenol	1,900 U J
100-02-7	4-Nitrophenol	970 U
132-64-9	Dibenzofuran	3,700
606-20-2	2,6-Dinitrotoluene	970 U

FORM-1

00236

002192

JMB  
1/22/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AD

LIMS ID: 97-17614

Matrix: Sediment

Data Release Authorized: *BNT*

Reported: 11/13/97

Sample No: 9738 4935

WR-SD- SD064 - 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 53.2%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	970 U
84-66-2	Diethylphthalate	190 U
7005-72-3	4-Chlorophenyl-phenylether	190 U
86-73-7	Fluorene	20,000 E 22000 D
100-01-6	4-Nitroaniline	970 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,900 U
86-30-6	N-Nitrosodiphenylamine	190 U
101-55-3	4-Bromophenyl-phenylether	190 U
118-74-1	Hexachlorobenzene	190 U
87-86-5	Pentachlorophenol	970 U
85-01-8	Phenanthrene	89,000 E 170000 D
86-74-8	Carbazole	5,500
120-12-7	Anthracene	21,000 E 26000 D
84-74-2	Di-n-Butylphthalate	190 U
206-44-0	Fluoranthene	66,000 E 110000 D
129-00-0	Pyrene	82,000 E 120000 D
85-68-7	Butylbenzylphthalate	190 U
91-94-1	3,3'-Dichlorobenzidine	970 U
56-55-3	Benzo(a)anthracene	24,000 E 28000 D
117-81-7	bis(2-Ethylhexyl)phthalate	340
218-01-9	Chrysene	29,000 E 36000 D
117-84-0	Di-n-Octyl phthalate	190 U
205-99-2	Benzo(b)fluoranthene	26,000 E 23000 D
207-08-9	Benzo(k)fluoranthene	14,000
50-32-8	Benzo(a)pyrene	34,000 E 40000 D
193-39-5	Indeno(1,2,3-cd)pyrene	21,000 E 19000 D
53-70-3	Dibenz(a,h)anthracene	6,200
191-24-2	Benzo(g,h,i)perylene	27,000 E 24000 D J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.2%	d5-Phenol	44.5%
2-Fluorobiphenyl	49.6%	2-Fluorophenol	41.1%
d14-p-Terphenyl	74.4%	2,4,6-Tribromophenol	53.9%
d4-1,2-Dichlorobenzene	29.2%	d4-2-Chlorophenol	37.3%

FORM-1

00267

002193

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4935

WR-SD-SD064-0000

Lab Sample ID: T914AD

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17614

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *MB*

Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene, _1-methyl_-	12.31	SVOA	23,000 J N
2. --	Unknown_C12.H10_PNA	13.03	SVOA	11,000 J N
3. --	Naphthalene, _Ethyl_Isomer	13.21	SVOA	11,000 J N
4. --	Naphthalene, _Dimethyl_Iso	13.34	SVOA	15,000 J N
5. --	Naphthalene, _Dimethyl_Iso	13.52	SVOA	20,000 J N
6. --	Naphthalene, _Dimethyl_Iso	13.72	SVOA	11,000 J N
7. --	Unknown_Aromatic	14.19	SVOA	10,000 J N
8. --	Naphthalene, _Trimethyl_Is	14.86	SVOA	7,700 J N
9. --	Naphthalene, _Trimethyl_Is	15.01	SVOA	8,600 J N
10. 132-65-0	Dibenzothiophene	16.92	SVOA	14,000 J N
11. --	Unknown_Aromatic	17.79	SVOA	7,800 J N
12. --	Unknown_C15.H12_PNA	18.15	SVOA	9,100 J N
13. --	Unknown_C15.H12_PNA	18.21	SVOA	10,000 J N
14. --	Unknown_Aromatic	18.39	SVOA	20,000 J N
15. --	Unknown_C16.H12_PNA	18.75	SVOA	8,000 J N
16. --	Unknown_C16.H10_PNA	19.77	SVOA	9,600 J N
17. --	Unknown_C17.H12_PNA	20.71	SVOA	10,000 J N
18. --	Unknown_PNA	22.04	SVOA	8,600 J N
19. --	Unknown_C20.H12_PNA	24.93	SVOA	12,000 J N
20. --	Unknown_C20.H12_PNA	25.15	SVOA	7,400 J N

FORM-1-B

00268

*JMB*  
*12/22/97*  
~~*00268*~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AD

LIMS ID: 97-17614

Matrix: Sediment

Data Release Authorized: *ans*

Reported: 11/13/97

Sample No: 9738 4935

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:200

Percent Moisture: 53.2%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	3,900 U
111-44-4	Bis-(2-Chloroethyl) Ether	7,800 U
95-57-8	2-Chlorophenol	3,900 U
541-73-1	1,3-Dichlorobenzene	3,900 U
106-46-7	1,4-Dichlorobenzene	3,900 U
100-51-6	Benzyl Alcohol	3,900 U
95-50-1	1,2-Dichlorobenzene	3,900 U
95-48-7	2-Methylphenol	3,900 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	3,900 U
106-44-5	4-Methylphenol	3,900 U
621-64-7	N-Nitroso-Di-N-Propylamine	7,800 U
67-72-1	Hexachloroethane	3,900 U
98-95-3	Nitrobenzene	3,900 U
78-59-1	Isophorone	3,900 U
88-75-5	2-Nitrophenol	19,000 U
105-67-9	2,4-Dimethylphenol	3,900 U
65-85-0	Benzoic Acid	39,000 U
111-91-1	bis(2-Chloroethoxy) Methane	3,900 U
120-83-2	2,4-Dichlorophenol	12,000 U
120-82-1	1,2,4-Trichlorobenzene	3,900 U
91-20-3	Naphthalene	130,000
106-47-8	4-Chloroaniline	12,000 U
87-68-3	Hexachlorobutadiene	3,900 U
59-50-7	4-Chloro-3-methylphenol	7,800 U
91-57-6	2-Methylnaphthalene	44,000
77-47-4	Hexachlorocyclopentadiene	19,000 U
88-06-2	2,4,6-Trichlorophenol	19,000 U
95-95-4	2,4,5-Trichlorophenol	19,000 U
91-58-7	2-Chloronaphthalene	3,900 U
88-74-4	2-Nitroaniline	19,000 U
131-11-3	Dimethylphthalate	3,900 U
208-96-8	Acenaphthylene	3,900 U
99-09-2	3-Nitroaniline	23,000 U
83-32-9	Acenaphthene	51,000
51-28-5	2,4-Dinitrophenol	39,000 U
100-02-7	4-Nitrophenol	19,000 U
132-64-9	Dibenzofuran	3,900 U
606-20-2	2,6-Dinitrotoluene	19,000 U

FORM-1

00259

002243 JME  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AD

LIMS ID: 97-17614

Matrix: Sediment

Data Release Authorized: *RWB*

Reported: 11/13/97

Sample No: 9738 4935  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:200  
Percent Moisture: 53.2%  
pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	19,000 U
84-66-2	Diethylphthalate	3,900 U
7005-72-3	4-Chlorophenyl-phenylether	3,900 U
86-73-7	Fluorene	22,000
100-01-6	4-Nitroaniline	19,000 U J
534-52-1	4,6-Dinitro-2-Methylphenol	39,000 U J
86-30-6	N-Nitrosodiphenylamine	3,900 U
101-55-3	4-Bromophenyl-phenylether	3,900 U
118-74-1	Hexachlorobenzene	3,900 U
87-86-5	Pentachlorophenol	19,000 U J
85-01-8	Phenanthrene	170,000
86-74-8	Carbazole	11,000 J
120-12-7	Anthracene	26,000
84-74-2	Di-n-Butylphthalate	3,900 U
206-44-0	Fluoranthene	110,000
129-00-0	Pyrene	120,000
85-68-7	Butylbenzylphthalate	3,900 U
91-94-1	3,3'-Dichlorobenzidine	19,000 U J
56-55-3	Benzo(a)anthracene	28,000
117-81-7	bis(2-Ethylhexyl)phthalate	3,900 U
218-01-9	Chrysene	36,000
117-84-0	Di-n-Octyl phthalate	3,900 U
205-99-2	Benzo(b)fluoranthene	23,000
207-08-9	Benzo(k)fluoranthene	22,000
50-32-8	Benzo(a)pyrene	40,000
193-39-5	Indeno(1,2,3-cd)pyrene	19,000
53-70-3	Dibenz(a,h)anthracene	4,300
191-24-2	Benzo(g,h,i)perylene	24,000 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00270

MMK  
002249 11/22/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4935  
DILUTION  
Lab Sample ID: T914AD QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17614 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *by*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Organic_Acid_____	11.75	SVOA	18,000 J N
2. ---	Benzothiophene_Isomer_____	12.61	SVOA	15,000 J N
3. 90-12-0	Naphthalene,_1-methyl_____	14.07	SVOA	23,000 J N
4. ---	Unknown_C12.H10_PNA_____	14.82	SVOA	11,000 J N
5. ---	Naphthalene,_Ethyl_Isomer_____	14.99	SVOA	8,700 J
6. ---	Naphthalene,_Dimethyl_Iso_____	15.12	SVOA	14,000 J
7. ---	Naphthalene,_Dimethyl_Iso_____	15.29	SVOA	22,000 J
8. ---	Naphthalene,_Dimethyl_Iso_____	15.51	SVOA	11,000 J
9. ---	Unknown_Aromatic_____	16.17	SVOA	7,800 J
10. ---	Naphthalene,_Trimethyl_Is_____	16.40	SVOA	8,500 J
11. 132-65-0	Dibenzothiophene_____	18.70	SVOA	9,700 J N
12. ---	Unknown_Aromatic_____	20.15	SVOA	12,000 J N
13. ---	Unknown_Sterol_type_____	20.71	SVOA	17,000 J
14. ---	Unknown_C16.H10_PNA_____	21.53	SVOA	11,000 J
15. ---	Unknown_C18.H10_PNA_____	23.80	SVOA	9,600 J
16. ---	Unknown_____	24.63	SVOA	12,000 J
17. ---	Unknown_Aromatic_____	25.97	SVOA	18,000 J
18. ---	Unknown_C20.H12_PNA_____	26.70	SVOA	25,000 J
19. ---	Unknown_____	27.30	SVOA	44,000 J
20. _____	_____	_____	_____	_____

FORM-1-B

00271

JMB  
002257 1/22/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AE

LIMS ID: 97-17615

Matrix: Sediment

Data Release Authorized: *yes*

Reported: 11/13/97

Sample No: 9738 4937

WR-SD-SD065-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/30/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 45.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	96 U
111-44-4	Bis-(2-Chloroethyl) Ether	190 U
95-57-8	2-Chlorophenol	96 U
541-73-1	1,3-Dichlorobenzene	96 U
106-46-7	1,4-Dichlorobenzene	96 U
100-51-6	Benzyl Alcohol	96 U
95-50-1	1,2-Dichlorobenzene	96 U
95-48-7	2-Methylphenol	96 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	96 U
106-44-5	4-Methylphenol	300
621-64-7	N-Nitroso-Di-N-Propylamine	190 U
67-72-1	Hexachloroethane	96 U
98-95-3	Nitrobenzene	96 U
78-59-1	Isophorone	96 U
88-75-5	2-Nitrophenol	480 U
105-67-9	2,4-Dimethylphenol	96 U
65-85-0	Benzoic Acid	960 U
111-91-1	bis(2-Chloroethoxy) Methane	96 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	96 U
91-20-3	Naphthalene	24,000 E 20000 D
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	96 U
59-50-7	4-Chloro-3-methylphenol	190 U
91-57-6	2-Methylnaphthalene	14,000 E 10000 D
77-47-4	Hexachlorocyclopentadiene	480 U
88-06-2	2,4,6-Trichlorophenol	480 U
95-95-4	2,4,5-Trichlorophenol	480 U
91-58-7	2-Chloronaphthalene	96 U
88-74-4	2-Nitroaniline	480 U
131-11-3	Dimethylphthalate	96 U
208-96-8	Acenaphthylene	3,600
99-09-2	3-Nitroaniline	570 U
83-32-9	Acenaphthene	16,000 E 15000 D
51-28-5	2,4-Dinitrophenol	960 U
100-02-7	4-Nitrophenol	480 U
132-64-9	Dibenzofuran	1,600
606-20-2	2,6-Dinitrotoluene	480 U

FORM-1

00272

JMB  
002297 1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AE

LIMS ID: 97-17615

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/13/97

Sample No: 9738 4937

WR-SD-SD065-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/30/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 45.0%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	480 U
84-66-2	Diethylphthalate	96 U
7005-72-3	4-Chlorophenyl-phenylether	96 U
86-73-7	Fluorene	11,000 <del>E</del> 10000 D
100-01-6	4-Nitroaniline	480 U
534-52-1	4,6-Dinitro-2-Methylphenol	960 U
86-30-6	N-Nitrosodiphenylamine	96 U
101-55-3	4-Bromophenyl-phenylether	96 U
118-74-1	Hexachlorobenzene	96 U
87-86-5	Pentachlorophenol	480 U J
85-01-8	Phenanthrene	62,000 <del>E</del> 100000 D
86-74-8	Carbazole	3,600 J
120-12-7	Anthracene	16,000 <del>E</del> 17000 D
84-74-2	Di-n-Butylphthalate	96 U
206-44-0	Fluoranthene	40,000 <del>E</del> 72000 D
129-00-0	Pyrene	61,000 <del>E</del> 80000 D
85-68-7	Butylbenzylphthalate	96 U
91-94-1	3,3'-Dichlorobenzidine	480 U
56-55-3	Benzo(a)anthracene	21,000 <del>E</del> 18000 D
117-81-7	bis(2-Ethylhexyl)phthalate	200 <del>E</del> U
218-01-9	Chrysene	23,000 <del>E</del> 23000 D
117-84-0	Di-n-Octyl phthalate	96 U
205-99-2	Benzo(b)fluoranthene	20,000 <del>E</del> 14000 D
207-08-9	Benzo(k)fluoranthene	13,000 <del>E</del> 12000 D
50-32-8	Benzo(a)pyrene	27,000 <del>E</del> 23000 D
193-39-5	Indeno(1,2,3-cd)pyrene	12,000 <del>E</del> 10000 D
53-70-3	Dibenz(a,h)anthracene	3,800
191-24-2	Benzo(g,h,i)perylene	14,000 <del>E</del> 13000 DJ

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	43.8%	d5-Phenol	54.3%
2-Fluorobiphenyl	52.2%	2-Fluorophenol	55.6%
d14-p-Terphenyl	96.8%	2,4,6-Tribromophenol	61.2%
d4-1,2-Dichlorobenzene	51.2%	d4-2-Chlorophenol	54.1%

FORM-1

00273

JMB  
1/22/97

00273



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4937  
WR-SD- SD065-0000

Lab Sample ID: T914AE  
LIMS ID: 97-17615  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *JMB*  
Reported: 11/13/97

Date Analyzed: 10/30/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.64	SVOA	15,000 JN
2. --	Naphthalene,_Dimethyl_Iso	13.69	SVOA	14,000 JN
3. --	Naphthalene,_Dimethyl_Iso	13.86	SVOA	21,000 JN
4. --	Naphthalene,_Dimethyl_Iso	14.08	SVOA	11,000 JN
5. --	Naphthalene,_Trimethyl_Is	15.02	SVOA	7,400 JN
6. --	Naphthalene,_Trimethyl_Is	15.22	SVOA	9,200 JN
7. --	Naphthalene,_Trimethyl_Is	15.39	SVOA	7,000 JN
8. --	Unknown_____	15.94	SVOA	8,800 JN
9. 132-65-0	Dibenzothiophene_____	17.27	SVOA	15,000 JN
10. --	Unknown_PNA_____	18.13	SVOA	10,000 JN
11. --	Unknown_C15.H12_PNA_____	18.51	SVOA	17,000 JN
12. --	Unknown_C15.H12_PNA_____	18.59	SVOA	16,000 JN
13. --	Unknown_PNA_____	18.75	SVOA	28,000 JN
14. --	Unknown_C16.H12_PNA_____	19.11	SVOA	12,000 JN
15. --	Unknown_C16.H14_PNA_____	19.40	SVOA	8,400 JN
16. --	Unknown_C16.H14_PNA_____	19.50	SVOA	13,000 JN
17. --	Unknown_C16.H14_PNA_____	19.66	SVOA	16,000 JN
18. --	Unknown_PNA_____	19.72	SVOA	8,000 JN
19. --	Unknown_C17.H12_PNA_____	21.08	SVOA	16,000 JN
20. --	Unknown_C17.H12_PNA_____	21.20	SVOA	7,000 J N

FORM-1-B

00274

002235

*JMB*  
12/22/97

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AE

LIMS ID: 97-17615

Matrix: Sediment

Data Release Authorized: *✓*

Reported: 11/13/97

Sample No: 9738 4937  
DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:100

Percent Moisture: 45.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	1,900 U
111-44-4	Bis-(2-Chloroethyl) Ether	3,800 U
95-57-8	2-Chlorophenol	1,900 U
541-73-1	1,3-Dichlorobenzene	1,900 U
106-46-7	1,4-Dichlorobenzene	1,900 U
100-51-6	Benzyl Alcohol	1,900 U
95-50-1	1,2-Dichlorobenzene	1,900 U
95-48-7	2-Methylphenol	1,900 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1,900 U
106-44-5	4-Methylphenol	1,900 U
621-64-7	N-Nitroso-Di-N-Propylamine	3,800 U
67-72-1	Hexachloroethane	1,900 U
98-95-3	Nitrobenzene	1,900 U
78-59-1	Isophorone	1,900 U
88-75-5	2-Nitrophenol	9,600 U
105-67-9	2,4-Dimethylphenol	1,900 U
65-85-0	Benzoic Acid	19,000 U
111-91-1	bis(2-Chloroethoxy) Methane	1,900 U
120-83-2	2,4-Dichlorophenol	5,700 U
120-82-1	1,2,4-Trichlorobenzene	1,900 U
91-20-3	Naphthalene	20,000
106-47-8	4-Chloroaniline	5,700 U
87-68-3	Hexachlorobutadiene	1,900 U
59-50-7	4-Chloro-3-methylphenol	3,800 U
91-57-6	2-Methylnaphthalene	11,000
77-47-4	Hexachlorocyclopentadiene	9,600 U
88-06-2	2,4,6-Trichlorophenol	9,600 U
95-95-4	2,4,5-Trichlorophenol	9,600 U
91-58-7	2-Chloronaphthalene	1,900 U
88-74-4	2-Nitroaniline	9,600 U
131-11-3	Dimethylphthalate	1,900 U
208-98-8	Acenaphthylene	3,700
99-09-2	3-Nitroaniline	11,000 U
83-32-9	Acenaphthene	15,000
51-28-5	2,4-Dinitrophenol	19,000 U
100-02-7	4-Nitrophenol	9,600 U
132-64-9	Dibenzofuran	1,900 U
606-20-2	2,6-Dinitrotoluene	9,600 U

FORM-1

00275

002350 JME  
1/22/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AE

LIMS ID: 97-17615

Matrix: Sediment

Data Release Authorized: *OKB*

Reported: 11/13/97

Sample No: 9738 4937  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.3 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:100  
Percent Moisture: 45.0%  
pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	9,600 U
84-66-2	Diethylphthalate	1,900 U
7005-72-3	4-Chlorophenyl-phenylether	1,900 U
86-73-7	Fluorene	10,000
100-01-6	4-Nitroaniline	9,600 U
534-52-1	4,6-Dinitro-2-Methylphenol	19,000 U
86-30-6	N-Nitrosodiphenylamine	1,900 U
101-55-3	4-Bromophenyl-phenylether	1,900 U
118-74-1	Hexachlorobenzene	1,900 U
87-86-5	Pentachlorophenol	9,600 U
85-01-8	Phenanthrene	100,000
86-74-8	Carbazole	5,400
120-12-7	Anthracene	17,000
84-74-2	Di-n-Butylphthalate	1,900 U
206-44-0	Fluoranthene	72,000
129-00-0	Pyrene	80,000
85-68-7	Butylbenzylphthalate	1,900 U
91-94-1	3,3'-Dichlorobenzidine	9,600 U
56-55-3	Benzo(a)anthracene	18,000
117-81-7	bis(2-Ethylhexyl)phthalate	1,900 U
218-01-9	Chrysene	23,000
117-84-0	Di-n-Octyl phthalate	1,900 U
205-99-2	Benzo(b)fluoranthene	14,000
207-08-9	Benzo(k)fluoranthene	12,000
50-32-8	Benzo(a)pyrene	23,000
193-39-5	Indeno(1,2,3-cd)pyrene	10,000
53-70-3	Dibenz(a,h)anthracene	2,400
191-24-2	Benzo(g,h,i)perylene	13,000

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00276

002351 *JMC  
(1/22)*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4937  
DILUTION  
Lab Sample ID: T914AE QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17615 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *AMB*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	14.07	SVOA	8,900 JN
2. ---	Naphthalene,_Ethyl_Isomer	14.99	SVOA	5,200 J N
3. ---	Naphthalene,_Dimethyl_Iso	15.12	SVOA	9,700 J
4. ---	Naphthalene,_Dimethyl_Iso	15.29	SVOA	14,000 J
5. ---	Naphthalene,_Dimethyl_Iso	15.51	SVOA	7,900 J
6. ---	Unknown_Aromatic_	16.17	SVOA	5,000 J
7. ---	Naphthalene,_Trimethyl_Is	16.40	SVOA	6,300 J
8. ---	Naphthalene,_Trimethyl_Is	16.45	SVOA	5,700 J
9. ---	Naphthalene,_Trimethyl_Is	16.66	SVOA	6,500 J
10. ---	Naphthalene,_Trimethyl_Is	16.80	SVOA	5,000 J
11. 132-65-0	Dibenzothiophene_	18.70	SVOA	6,700 JN
12. ---	Unknown_C15.H12_PNA	19.92	SVOA	7,100 J N
13. ---	Unknown_C15.H12_PNA	19.98	SVOA	9,600 J
14. ---	Unknown_Aromatic_	20.15	SVOA	16,000 J
15. ---	Unknown_C16.H12_PNA	20.53	SVOA	4,300 J
16. ---	Unknown_C16.H14_PNA	20.91	SVOA	5,200 J
17. ---	Unknown_C16.H14_PNA	21.07	SVOA	4,900 J
18. ---	Unknown_C16.H10_PNA	21.53	SVOA	5,600 J
19. ---	Unknown_C17.H12_PNA	22.47	SVOA	7,600 J
20. ---	Unknown_C20.H12_PNA	26.70	SVOA	6,000 J



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AF

LIMS ID: 97-17616

Matrix: Sediment

Data Release Authorized: *MP*

Reported: 11/13/97

Sample No: 9738 4938

WR-SD- SD067- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 50.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	200 U
111-44-4	Bis-(2-Chloroethyl) Ether	400 U
95-57-8	2-Chlorophenol	200 U
541-73-1	1,3-Dichlorobenzene	200 U
106-46-7	1,4-Dichlorobenzene	200 U
100-51-6	Benzyl Alcohol	200 U
95-50-1	1,2-Dichlorobenzene	200 U
95-48-7	2-Methylphenol	200 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	200 U
106-44-5	4-Methylphenol	250
621-64-7	N-Nitroso-Di-N-Propylamine	400 U
67-72-1	Hexachloroethane	200 U
98-95-3	Nitrobenzene	200 U
78-59-1	Isophorone	200 U
88-75-5	2-Nitrophenol	1,000 U
105-67-9	2,4-Dimethylphenol	200 U
65-85-0	Benzoic Acid	2,000 U
111-91-1	bis(2-Chloroethoxy) Methane	200 U
120-83-2	2,4-Dichlorophenol	600 U
120-82-1	1,2,4-Trichlorobenzene	200 U
91-20-3	Naphthalene	13,000
106-47-8	4-Chloroaniline	600 U
87-68-3	Hexachlorobutadiene	200 U
59-50-7	4-Chloro-3-methylphenol	400 U
91-57-6	2-Methylnaphthalene	7,600
77-47-4	Hexachlorocyclopentadiene	1,000 U
88-06-2	2,4,6-Trichlorophenol	1,000 U
95-95-4	2,4,5-Trichlorophenol	1,000 U
91-58-7	2-Chloronaphthalene	200 U
88-74-4	2-Nitroaniline	1,000 U
131-11-3	Dimethylphthalate	200 U
208-96-8	Acenaphthylene	2,000
99-09-2	3-Nitroaniline	1,200 U
83-32-9	Acenaphthene	11,000
51-28-5	2,4-Dinitrophenol	2,000 U
100-02-7	4-Nitrophenol	1,000 U
132-64-9	Dibenzofuran	1,300
606-20-2	2,6-Dinitrotoluene	1,000 U

FORM-1

00278

002400

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AF

LIMS ID: 97-17616

Matrix: Sediment

Data Release Authorized: *AMB*

Reported: 11/13/97

Sample No: 9738 4938

WR-SD- SD067-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 50.0%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	1,000 U
84-66-2	Diethylphthalate	200 U
7005-72-3	4-Chlorophenyl-phenylether	200 U
86-73-7	Fluorene	9,400
100-01-6	4-Nitroaniline	1,000 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,000 U
86-30-6	N-Nitrosodiphenylamine	200 U
101-55-3	4-Bromophenyl-phenylether	200 U
118-74-1	Hexachlorobenzene	200 U
87-86-5	Pentachlorophenol	1,000 U
85-01-8	Phenanthrene	43,000 E 64000 D
86-74-8	Carbazole	1,800
120-12-7	Anthracene	13,000
84-74-2	Di-n-Butylphthalate	200 U
206-44-0	Fluoranthene	30,000 E 45000 D
129-00-0	Pyrene	51,000 E 54000 D
85-68-7	Butylbenzylphthalate	200 U
91-94-1	3,3'-Dichlorobenzidine	1,000 U
56-55-3	Benzo(a)anthracene	14,000
117-81-7	bis(2-Ethylhexyl)phthalate	200 U
218-01-9	Chrysene	18,000 E 17000 D
117-84-0	Di-n-Octyl phthalate	200 U
205-99-2	Benzo(b)fluoranthene	12,000
207-08-9	Benzo(k)fluoranthene	10,000
50-32-8	Benzo(a)pyrene	18,000 E 15000 D
193-39-5	Indeno(1,2,3-cd)pyrene	9,500
53-70-3	Dibenz(a,h)anthracene	2,500
191-24-2	Benzo(g,h,i)perylene	13,000

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	39.2%	d5-Phenol	45.9%
2-Fluorobiphenyl	50.0%	2-Fluorophenol	44.8%
d14-p-Terphenyl	82.8%	2,4,6-Tribromophenol	59.5%
d4-1,2-Dichlorobenzene	31.6%	d4-2-Chlorophenol	41.6%

FORM-1

00279

JMB  
1/22/98  
002401



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4938  
WR-SD-SD067-0000  
Lab Sample ID: T914AF QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17616 Project: 1001.006  
Matrix: Sediment Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *OKP*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.28	SVOA	8,900 JN
2. --	Naphthalene,_Dimethyl_Iso	13.32	SVOA	9,600 JN
3. --	Naphthalene,_Dimethyl_Iso	13.49	SVOA	14,000 JN
4. --	Naphthalene,_Dimethyl_Iso	13.71	SVOA	4,900 JN
5. --	Unknown_Aromatic_____	14.37	SVOA	4,300 JN
6. --	Naphthalene,_Trimethyl_Is	14.65	SVOA	4,900 JN
7. --	Naphthalene,_Trimethyl_Is	14.86	SVOA	6,300 JN
8. --	Naphthalene,_Trimethyl_Is	15.00	SVOA	5,200 JN
9. 132-65-0	Dibenzothiophene_____	16.91	SVOA	9,300 JN
10. --	Unknown_Aromatic_____	17.78	SVOA	6,300 JN
11. --	Unknown_C15.H12_PNA_____	18.15	SVOA	11,000 JN
12. --	Unknown_C15.H12_PNA_____	18.21	SVOA	11,000 JN
13. --	Unknown_____	18.37	SVOA	18,000 JN
14. --	Unknown_C16.H12_PNA_____	18.74	SVOA	6,800 JN
15. --	Unknown_C16.H14_PNA_____	19.12	SVOA	8,800 JN
16. --	Unknown_C16.H14_PNA_____	19.28	SVOA	8,200 JN
17. --	Unknown_____	19.34	SVOA	6,500 JN
18. --	Unknown_C16.H10_PNA_____	19.74	SVOA	7,200 JN
19. --	Unknown_PNA_____	20.69	SVOA	8,400 JN
20. --	Unknown_C20.H12_PNA_____	24.90	SVOA	4,000 JN

FORM-1-B

00280

*JMB*  
12/22/97  
~~00280~~

## ORGANICS ANALYSIS DATA SHEET

Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AF

LIMS ID: 97-17616

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/13/97

Sample No: 9738 4938

## DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:200

Percent Moisture: 50.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	4,000 U
111-44-4	Bis-(2-Chloroethyl) Ether	8,000 U
95-57-8	2-Chlorophenol	4,000 U
541-73-1	1,3-Dichlorobenzene	4,000 U
106-46-7	1,4-Dichlorobenzene	4,000 U
100-51-6	Benzyl Alcohol	4,000 U
95-50-1	1,2-Dichlorobenzene	4,000 U
95-48-7	2-Methylphenol	4,000 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	4,000 U
106-44-5	4-Methylphenol	4,000 U
621-64-7	N-Nitroso-Di-N-Propylamine	8,000 U
67-72-1	Hexachloroethane	4,000 U
98-95-3	Nitrobenzene	4,000 U
78-59-1	Isophorone	4,000 U
88-75-5	2-Nitrophenol	20,000 U
105-67-9	2,4-Dimethylphenol	4,000 U
65-85-0	Benzoic Acid	40,000 U
111-91-1	bis(2-Chloroethoxy) Methane	4,000 U
120-83-2	2,4-Dichlorophenol	12,000 U
120-82-1	1,2,4-Trichlorobenzene	4,000 U
91-20-3	Naphthalene	11,000
106-47-8	4-Chloroaniline	12,000 U
87-68-3	Hexachlorobutadiene	4,000 U
59-50-7	4-Chloro-3-methylphenol	8,000 U
91-57-6	2-Methylnaphthalene	6,300
77-47-4	Hexachlorocyclopentadiene	20,000 U
88-06-2	2,4,6-Trichlorophenol	20,000 U
95-95-4	2,4,5-Trichlorophenol	20,000 U
91-58-7	2-Chloronaphthalene	4,000 U
88-74-4	2-Nitroaniline	20,000 U
131-11-3	Dimethylphthalate	4,000 U
208-96-8	Acenaphthylene	4,000 U
99-09-2	3-Nitroaniline	24,000 U
83-32-9	Acenaphthene	11,000
51-28-5	2,4-Dinitrophenol	40,000 U
100-02-7	4-Nitrophenol	20,000 U
132-64-9	Dibenzofuran	4,000 U
606-20-2	2,6-Dinitrotoluene	20,000 U

FORM-1

00281

002152

*JMB  
1/22/98*

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AF

LIMS ID: 97-17616

Matrix: Sediment

Data Release Authorized: *AWP*

Reported: 11/13/97

Sample No: 9738 4938  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.0 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:200  
Percent Moisture: 50.0%  
pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	20,000 U
84-66-2	Diethylphthalate	4,000 U
7005-72-3	4-Chlorophenyl-phenylether	4,000 U
86-73-7	Fluorene	7,000
100-01-6	4-Nitroaniline	20,000 U
534-52-1	4,6-Dinitro-2-Methylphenol	40,000 U
86-30-6	N-Nitrosodiphenylamine	4,000 U
101-55-3	4-Bromophenyl-phenylether	4,000 U
118-74-1	Hexachlorobenzene	4,000 U
87-86-5	Pentachlorophenol	20,000 U
85-01-8	Phenanthrene	64,000
86-74-8	Carbazole	4,100
120-12-7	Anthracene	12,000
84-74-2	Di-n-Butylphthalate	4,000 U
206-44-0	Fluoranthene	45,000
129-00-0	Pyrene	54,000
85-68-7	Butylbenzylphthalate	4,000 U
91-94-1	3,3'-Dichlorobenzidine	20,000 U
56-55-3	Benzo(a)anthracene	13,000
117-81-7	bis(2-Ethylhexyl)phthalate	4,000 U
218-01-9	Chrysene	17,000
117-84-0	Di-n-Octyl phthalate	4,000 U
205-99-2	Benzo(b)fluoranthene	8,100
207-08-9	Benzo(k)fluoranthene	9,400
50-32-8	Benzo(a)pyrene	15,000
193-39-5	Indeno(1,2,3-cd)pyrene	7,000
53-70-3	Dibenz(a,h)anthracene	4,000 U
191-24-2	Benzo(g,h,i)perylene	8,800

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00232

002453

JMB  
1/22/98

ANALYTICAL  
RESOURCES  
INCORPORATED



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4938  
DILUTION  
Lab Sample ID: T914AF QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17616 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *On B*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Naphthalene, Dimethyl Iso	15.28	SVOA	11,000 J N
2. ---	Unknown_C15.H12_PNA	19.92	SVOA	8,000 J
3. ---	Unknown_C15.H12_PNA	19.98	SVOA	9,700 J
4. ---	Unknown_Aromatic	20.15	SVOA	16,000 J
5. ---	Unknown_C16.H10_PNA	21.52	SVOA	9,300 J
6. ---	Unknown_C17.H12_PNA	22.47	SVOA	12,000 J
7. ---	Unknown_C20.H12_PNA	26.68	SVOA	10,000 J
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

FORM-1-B

00283

*JMB*  
~~002454~~  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AX

LIMS ID: 97-17617

Matrix: Sediment

Data Release Authorized: *OMS*

Reported: 11/13/97

Sample No: 9738 4939

WR-SD- SD068-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	160
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	790
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	2,200 E 2700 D
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	740
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	8,000 E 1500 C D
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	700
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00284

003476

JMB  
12/21/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AX

LIMS ID: 97-17617

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/13/97

Sample No: 9738 4939

WR-SD- SD068-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	4,100 E 4900 D
100-01-6	4-Nitroaniline	98 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U D
86-30-6	N-Nitrosodiphenylamine	20 U J
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U J
85-01-8	Phenanthrene	21,000 E 33000 D
86-74-8	Carbazole	2,100 E 1700 D J
120-12-7	Anthracene	4,400 E 6000 D
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	13,000 E 20000 D
129-00-0	Pyrene	14,000 E 26000 D
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U J
56-55-3	Benzo(a)anthracene	5,800 E 6300 D
117-81-7	bis(2-Ethylhexyl)phthalate	150
218-01-9	Chrysene	6,100 E 8600 D
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	6,100 E 3900 D
207-08-9	Benzo(k)fluoranthene	1,900 E 5400 D
50-32-8	Benzo(a)pyrene	6,900 E 8000 D
193-39-5	Indeno(1,2,3-cd)pyrene	4,000 E 4200 D
53-70-3	Dibenz(a,h)anthracene	1,500
191-24-2	Benzo(g,h,i)perylene	4,600 E 5900 D J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	64.9%	d5-Phenol	62.4%
2-Fluorobiphenyl	59.8%	2-Fluorophenol	70.6%
d14-p-Terphenyl	89.9%	2,4,6-Tribromophenol	59.1%
d4-1,2-Dichlorobenzene	58.9%	d4-2-Chlorophenol	63.5%

FORM-1

00285

003177

JM  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4939

WR-SD-SD06X-0000

Lab Sample ID: T914AX

LIMS ID: 97-17617

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *DMB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	13.06	SVOA	4,800 JN
2. --	Naphthalene,_Ethyl_Isomer	13.96	SVOA	3,000 JN
3. --	Naphthalene,_Dimethyl_Iso	14.10	SVOA	3,300 JN
4. --	Naphthalene,_Dimethyl_Iso	14.28	SVOA	4,600 JN
5. --	Naphthalene,_Dimethyl_Iso	14.48	SVOA	2,400 JN
6. --	Unknown_Aromatic_____	15.14	SVOA	1,900 JN
7. --	Naphthalene,_Trimethyl_Is	15.63	SVOA	2,300 JN
8. --	Naphthalene,_Trimethyl_Is	15.76	SVOA	1,400 JN
9. --	Unknown_Aromatic_____	16.13	SVOA	1,400 JN
10. --	Unknown_Aromatic_____	16.20	SVOA	1,700 JN
11. --	Unknown_____	16.35	SVOA	1,900 JN
12. 132-65-0	Dibenzothiophene_____	17.69	SVOA	2,900 JN
13. --	Unknown_C16.H12_PNA_____	18.54	SVOA	1,500 J N
14. --	Unknown_C15.H12_PNA_____	18.91	SVOA	1,600 J N
15. --	Unknown_C15.H12_PNA_____	18.99	SVOA	1,600 J N
16. --	Unknown_Aromatic_____	19.16	SVOA	2,800 J N
17. --	Unknown_C16.H12_PNA_____	19.52	SVOA	1,500 J N
18. --	Unknown_____	20.51	SVOA	1,900 J N
19. --	Unknown_C17.H12_PNA_____	21.51	SVOA	1,800 J N
20. --	Unknown_C20.H12_PNA_____	25.70	SVOA	1,400 J N

FORM-1-B

00286

*JMB*  
12/22/97

~~100-17~~

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AX

LIMS ID: 97-17617

Matrix: Sediment

Data Release Authorized: *yes*

Reported: 11/13/97

Sample No: 9738 4939  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:50  
Percent Moisture: 46.7%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	980 U
111-44-4	Bis-(2-Chloroethyl) Ether	2,000 U
95-57-8	2-Chlorophenol	980 U
541-73-1	1,3-Dichlorobenzene	980 U
106-46-7	1,4-Dichlorobenzene	980 U
100-51-6	Benzyl Alcohol	980 U
95-50-1	1,2-Dichlorobenzene	980 U
95-48-7	2-Methylphenol	980 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	980 U
106-44-5	4-Methylphenol	980 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,000 U
67-72-1	Hexachloroethane	980 U
98-95-3	Nitrobenzene	980 U
78-59-1	Isophorone	980 U
88-75-5	2-Nitrophenol	4,900 U
105-67-9	2,4-Dimethylphenol	980 U
65-85-0	Benzoic Acid	9,800 U
111-91-1	bis(2-Chloroethoxy) Methane	980 U
120-83-2	2,4-Dichlorophenol	3,000 U
120-82-1	1,2,4-Trichlorobenzene	980 U
91-20-3	Naphthalene	980 U
106-47-8	4-Chloroaniline	3,000 U
87-68-3	Hexachlorobutadiene	980 U
59-50-7	4-Chloro-3-methylphenol	2,000 U
91-57-6	2-Methylnaphthalene	2,700
77-47-4	Hexachlorocyclopentadiene	4,900 U
88-06-2	2,4,6-Trichlorophenol	4,900 U
95-95-4	2,4,5-Trichlorophenol	4,900 U
91-58-7	2-Chloronaphthalene	980 U
88-74-4	2-Nitroaniline	4,900 U
131-11-3	Dimethylphthalate	980 U
208-96-8	Acenaphthylene	980 U
99-09-2	3-Nitroaniline	5,900 U
83-32-9	Acenaphthene	15,000
51-28-5	2,4-Dinitrophenol	9,800 U
100-02-7	4-Nitrophenol	4,900 U
132-64-9	Dibenzofuran	980 U
606-20-2	2,6-Dinitrotoluene	4,900 U

FORM-1

00287

003538

ANALYTICAL  
RESOURCES  
INCORPORATED

JMB  
11/22/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AX

LIMS ID: 97-17617

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/13/97

Sample No: 9738 4939

DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:50

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	4,900 U
84-66-2	Diethylphthalate	980 U
7005-72-3	4-Chlorophenyl-phenylether	980 U
86-73-7	Fluorene	4,900
100-01-6	4-Nitroaniline	4,900 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	9,800 U <i>P</i>
86-30-6	N-Nitrosodiphenylamine	980 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	980 U
118-74-1	Hexachlorobenzene	980 U
87-86-5	Pentachlorophenol	4,900 U <i>J</i>
85-01-8	Phenanthrene	33,000
86-74-8	Carbazole	1,700 <i>J</i>
120-12-7	Anthracene	6,000
84-74-2	Di-n-Butylphthalate	980 U
206-44-0	Fluoranthene	20,000
129-00-0	Pyrene	26,000
85-68-7	Butylbenzylphthalate	980 U
91-94-1	3,3'-Dichlorobenzidine	4,900 U <i>J</i>
56-55-3	Benzo(a)anthracene	6,300
117-81-7	bis(2-Ethylhexyl)phthalate	980 U
218-01-9	Chrysene	8,600
117-84-0	Di-n-Octyl phthalate	980 U
205-99-2	Benzo(b)fluoranthene	3,900
207-08-9	Benzo(k)fluoranthene	5,400
50-32-8	Benzo(a)pyrene	8,000
193-39-5	Indeno(1,2,3-cd)pyrene	4,200
53-70-3	Dibenz(a,h)anthracene	980 U
191-24-2	Benzo(g,h,i)perylene	5,900 <i>J</i>

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00288

003539

*JMB  
1/22*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4939  
DILUTION  
Lab Sample ID: T914AX QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17617 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *ewp*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Aromatic	10.34	SVOA	2,500 J N
2. ---	Unknown_Hydrocarbon	12.51	SVOA	48,000 J N
3. 90-12-0	Naphthalene,_1-methyl-	14.07	SVOA	6,800 J N
4. ---	Naphthalene,_Ethyl_Isomer	15.00	SVOA	2,900 J N
5. ---	Naphthalene,_Dimethyl_Iso	15.12	SVOA	3,600 J
6. ---	Naphthalene,_Dimethyl_Iso	15.29	SVOA	6,100 J
7. ---	Naphthalene,_Dimethyl_Iso	15.51	SVOA	2,700 J
8. ---	Unknown_Aromatic	16.17	SVOA	2,000 J
9. ---	Naphthalene,_Trimethyl_Is	16.41	SVOA	2,200 J
10. ---	Unknown_Hydrocarbon	17.37	SVOA	2,100 J
11. 132-65-0	Dibenzothiophene	18.70	SVOA	2,900 J N
12. ---	Unknown_C15.H12_PNA	19.98	SVOA	2,000 J N
13. ---	Unknown_Aromatic	20.15	SVOA	4,200 J
14. ---	Unknown_PNA	23.80	SVOA	2,600 J
15. ---	Unknown_C20.H12_PNA	26.68	SVOA	4,800 J
16. _____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____

FORM-1-B

00289

003540

JM/R  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AY

LIMS ID: 97-17618

Matrix: Sediment

Data Release Authorized: *out*

Reported: 11/13/97

Sample No: 9738 4940

WR-SD- SD069-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.3%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	64
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	200
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	210
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	180
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	<del>4,400 E</del> 5600 D
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	<del>2,200 E</del> 1900 D
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00290

003579

MB  
12219



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AY

LIMS ID: 97-17618

Matrix: Sediment

Data Release Authorized: *AP*

Reported: 11/13/97

Sample No: 9738 4940

WR-SD- SD069-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.3%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	5,100 E 6700 D
100-01-6	4-Nitroaniline	98 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U J
86-30-6	N-Nitrosodiphenylamine	20 U J
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U J
85-01-8	Phenanthrene	19,000 E 31000 D J
86-74-8	Carbazole	4,300 E 3400 D J
120-12-7	Anthracene	11,000 E 22000 D J
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	13,000 E 22000 D
129-00-0	Pyrene	7,600 E 17000 D
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U J
56-55-3	Benzo(a)anthracene	4,600 E 4800 D
117-81-7	bis(2-Ethylhexyl)phthalate	76
218-01-9	Chrysene	5,000 E 6300 D
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	2,600 E 1900 D
207-08-9	Benzo(k)fluoranthene	1,400
50-32-8	Benzo(a)pyrene	2,600 E 2400 D
193-39-5	Indeno(1,2,3-cd)pyrene	1,100
53-70-3	Dibenz(a,h)anthracene	390
191-24-2	Benzo(g,h,i)perylene	1,100

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.3%	d5-Phenol	60.8%
2-Fluorobiphenyl	63.5%	2-Fluorophenol	66.9%
d14-p-Terphenyl	82.6%	2,4,6-Tribromophenol	73.7%
d4-1,2-Dichlorobenzene	54.8%	d4-2-Chlorophenol	62.1%

FORM-1

00291

003580

JMB  
11/22/19



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4940

WR-SD-SD069-0000

Lab Sample ID: T914AY

LIMS ID: 97-17618

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *ONB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Naphthalene,_Dimethyl_Iso	14.23	SVOA	1,700 J N
2. --	Unknown_Aromatic_____	16.18	SVOA	1,400 J N
3. --	Unknown_Aromatic_____	16.25	SVOA	980 J N
4. --	Unknown_Aromatic_____	16.35	SVOA	1,500 J N
5. --	Unknown_Aromatic_____	17.58	SVOA	1,200 J N
6. 132-65-0	Dibenzothiophene_____	17.65	SVOA	1,600 J N
7. --	Unknown_Aromatic_____	18.22	SVOA	1,000 J N
8. --	Unknown_C16.H12_PNA_____	18.54	SVOA	1,200 J N
9. --	Unknown_C15.H12_PNA_____	18.90	SVOA	2,000 J N
10. --	Unknown_C15.H12_PNA_____	18.98	SVOA	2,000 J N
11. --	Unknown_PNA_____	19.08	SVOA	2,000 J N
12. --	Unknown_Aromatic_____	19.18	SVOA	4,200 J N
13. --	Unknown_C16.H14_PNA_____	19.79	SVOA	980 J N
14. --	Unknown_C16.H14_PNA_____	19.88	SVOA	980 J N
15. --	Unknown_Aromatic_____	21.04	SVOA	1,000 J N
16. --	Unknown_C17.H12_PNA_____	21.27	SVOA	1,400 J N
17. --	Unknown_C17.H12_PNA_____	21.50	SVOA	2,700 J N
18. --	Unknown_C17.H12_PNA_____	21.62	SVOA	2,300 J N
19. --	Unknown_C17.H12_PNA_____	21.69	SVOA	2,100 J N
20. --	Unknown_PNA_____	22.78	SVOA	1,800 J N

FORM-1-B

00292

*JMB*  
12/22/97

*0A3581*

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS



ANALYTICAL  
RESOURCES  
INCORPORATED

Page 1 of 2

Lab Sample ID: T914AY

LIMS ID: 97-17618

Matrix: Sediment

Data Release Authorized: *OKB*

Reported: 11/13/97

Sample No: 9738 4940  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:50  
Percent Moisture: 40.3%  
pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	980 U
111-44-4	Bis-(2-Chloroethyl) Ether	2,000 U
95-57-8	2-Chlorophenol	980 U
541-73-1	1,3-Dichlorobenzene	980 U
106-46-7	1,4-Dichlorobenzene	980 U
100-51-6	Benzyl Alcohol	980 U
95-50-1	1,2-Dichlorobenzene	980 U
95-48-7	2-Methylphenol	980 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	980 U
106-44-5	4-Methylphenol	980 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,000 U
67-72-1	Hexachloroethane	980 U
98-95-3	Nitrobenzene	980 U
78-59-1	Isophorone	980 U
88-75-5	2-Nitrophenol	4,900 U
105-67-9	2,4-Dimethylphenol	980 U
65-85-0	Benzoic Acid	9,800 U
111-91-1	bis(2-Chloroethoxy) Methane	980 U
120-83-2	2,4-Dichlorophenol	2,900 U
120-82-1	1,2,4-Trichlorobenzene	980 U
91-20-3	Naphthalene	980 U
106-47-8	4-Chloroaniline	2,900 U
87-68-3	Hexachlorobutadiene	980 U
59-50-7	4-Chloro-3-methylphenol	2,000 U
91-57-6	2-Methylnaphthalene	980 U
77-47-4	Hexachlorocyclopentadiene	4,900 U
88-06-2	2,4,6-Trichlorophenol	4,900 U
95-95-4	2,4,5-Trichlorophenol	4,900 U
91-58-7	2-Chloronaphthalene	980 U
88-74-4	2-Nitroaniline	4,900 U
131-11-3	Dimethylphthalate	980 U
208-96-8	Acenaphthylene	980 U
99-09-2	3-Nitroaniline	5,900 U
83-32-9	Acenaphthene	5,600
51-28-5	2,4-Dinitrophenol	9,800 U
100-02-7	4-Nitrophenol	4,900 U
132-64-9	Dibenzofuran	1,900
606-20-2	2,6-Dinitrotoluene	4,900 U

FORM-1

00293

003636

*MB*  
1/22/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AY

LIMS ID: 97-17618

Matrix: Sediment

Data Release Authorized: ~~0018~~

Reported: 11/13/97

Sample No: 9738 4940

## DILUTION

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 11/03/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:50

Percent Moisture: 40.3%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	4,900 U
84-66-2	Diethylphthalate	980 U
7005-72-3	4-Chlorophenyl-phenylether	980 U
86-73-7	Fluorene	6,700
100-01-6	4-Nitroaniline	4,900 U J
534-52-1	4,6-Dinitro-2-Methylphenol	9,800 U D
86-30-6	N-Nitrosodiphenylamine	980 U J
101-55-3	4-Bromophenyl-phenylether	980 U
118-74-1	Hexachlorobenzene	980 U
87-86-5	Pentachlorophenol	4,900 U J
85-01-8	Phenanthrene	31,000
86-74-8	Carbazole	3,400 J
120-12-7	Anthracene	22,000
84-74-2	Di-n-Butylphthalate	980 U
206-44-0	Fluoranthene	22,000
129-00-0	Pyrene	17,000
85-68-7	Butylbenzylphthalate	980 U
91-94-1	3,3'-Dichlorobenzidine	4,900 U J
56-55-3	Benzo(a)anthracene	4,800
117-81-7	bis(2-Ethylhexyl)phthalate	980 U
218-01-9	Chrysene	6,300
117-84-0	Di-n-Octyl phthalate	980 U
205-99-2	Benzo(b)fluoranthene	1,900
207-08-9	Benzo(k)fluoranthene	2,100
50-32-8	Benzo(a)pyrene	2,400
193-39-5	Indeno(1,2,3-cd)pyrene	1,100
53-70-3	Dibenz(a,h)anthracene	980 U
191-24-2	Benzo(g,h,i)perylene	1,300 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00294

JM B  
1/22/98  
00363



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AI

LIMS ID: 97-17621

Matrix: Sediment

Data Release Authorized: *BWB*

Reported: 11/13/97

Sample No: 9738 4944

WR-SD- SD072-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 36.9%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	960
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U <i>J</i>
85-01-8	Phenanthrene	2,200 <i>H</i> 1800 D
86-74-8	Carbazole	86 <i>J</i>
120-12-7	Anthracene	440
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,600 <i>H</i> 1500 D
129-00-0	Pyrene	2,100 <i>E</i> 1600 D
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	700
117-81-7	bis(2-Ethylhexyl)phthalate	210 <i>A</i>
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	800
207-08-9	Benzo(k)fluoranthene	630
50-32-8	Benzo(a)pyrene	980
193-39-5	Indeno(1,2,3-cd)pyrene	560
53-70-3	Dibenz(a,h)anthracene	160
191-24-2	Benzo(g,h,i)perylene	600

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.6%	d5-Phenol	65.4%
2-Fluorobiphenyl	62.2%	2-Fluorophenol	67.4%
d14-p-Terphenyl	91.2%	2,4,6-Tribromophenol	74.7%
d4-1,2-Dichlorobenzene	57.2%	d4-2-Chlorophenol	64.2%

FORM-1

002656

00295

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4940  
DILUTION  
Lab Sample ID: T914AY QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17618 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *JMP*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Hydrocarbon_____	12.50	SVOA	46,000 J N
2. ---	Unknown_C15.H12_PNA_____	19.98	SVOA	2,200 J
3. ---	Unknown_Aromatic_____	20.15	SVOA	6,200 J
4. ---	Unknown_C17.H12_PNA_____	22.47	SVOA	5,300 J
5. ---	Unknown_C17.H12_PNA_____	22.60	SVOA	3,600 J
6. ---	Unknown_Hydrocarbon_____	25.23	SVOA	2,300 J
7. _____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____

FORM-1-B

00296

*JMB*  
1/22/98

~~003638~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AG

LIMS ID: 97-17619

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

Sample No: 9738 4941

WR-SD-SDc70-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	61
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	56 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	510
106-47-8	4-Chloroaniline	56 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	530
77-47-4	Hexachlorocyclopentadiene	94 U
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	64
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	<del>7,900</del> 11000 D
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	<del>3,100</del> 2600 D
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00297

002486 JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AG

LIMS ID: 97-17619

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

Sample No: 9738 4941

WR-SD- SD070-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	8,000 E 11000 D
100-01-6	4-Nitroaniline	94 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U J
85-01-8	Phenanthrene	26,000 E 40000 D
86-74-8	Carbazole	2,000 E J
120-12-7	Anthracene	6,600 E 8000 D
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	45,000 E 19000 D
129-00-0	Pyrene	11,000 E 17000 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	3,100 E 2900 D
117-81-7	bis(2-Ethylhexyl)phthalate	94 E U
218-01-9	Chrysene	3,100 E 3200 D
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,600 E 1100 D
207-08-9	Benzo(k)fluoranthene	1,200
50-32-8	Benzo(a)pyrene	1,400
193-39-5	Indeno(1,2,3-cd)pyrene	520
53-70-3	Dibenz(a,h)anthracene	210
191-24-2	Benzo(g,h,i)perylene	460

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	45.6%	d5-Phenol	52.0%
2-Fluorobiphenyl	48.7%	2-Fluorophenol	53.5%
d14-p-Terphenyl	77.0%	2,4,6-Tribromophenol	63.6%
d4-1,2-Dichlorobenzene	43.3%	d4-2-Chlorophenol	49.8%

FORM-1

00298

JMB  
002487 1/22/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4941

WR-SD-SD070-0000

Lab Sample ID: T914AG  
LIMS ID: 97-17619  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *OMA*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Naphthalene, Dimethyl Iso	13.67	SVOA	1,500 J N
2.	-- Naphthalene, Dimethyl Iso	13.84	SVOA	2,300 J N
3.	-- Unknown	15.80	SVOA	2,500 J N
4.	-- Unknown_C13.H12_PNA	15.86	SVOA	1,500 J N
5.	-- Unknown_Aromatic	15.96	SVOA	2,000 J N
6.	-- Unknown_C14.H12_PNA	16.48	SVOA	1,400 J N
7.	-- Unknown_C14.H12_PNA	16.70	SVOA	1,600 J N
8.	-- Unknown_C14.H12_PNA	16.88	SVOA	1,200 J N
9.	132-65-0 Dibenzothiophene	17.25	SVOA	2,400 J N
10.	-- Unknown_C16.H12_PNA	18.12	SVOA	1,300 J N
11.	-- Unknown_C15.H12_PNA	18.50	SVOA	2,400 J N
12.	-- Unknown_C15.H12_PNA	18.58	SVOA	2,500 J N
13.	-- Unknown_C15.H12_PNA	18.65	SVOA	1,100 J N
14.	-- Unknown_Aromatic	18.76	SVOA	5,400 J N
15.	-- Unknown_C16.H12_PNA	19.10	SVOA	1,500 J N
16.	-- Unknown	20.08	SVOA	1,500 J N
17.	-- Unknown_Aromatic	20.45	SVOA	4,000 J N
18.	-- Unknown_C17.H12_PNA	20.84	SVOA	1,200 J N
19.	-- Unknown_C17.H12_PNA	21.07	SVOA	2,600 J N
20.	-- Unknown_C17.H12_PNA	21.19	SVOA	1,900 J N

FORM-1-B

00299

*JMB*  
*12/22/97*

~~00299~~

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AG

LIMS ID: 97-17619

Matrix: Sediment

Data Release Authorized: *✓*

Reported: 11/13/97

Sample No. 9738 4941  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:50

Percent Moisture: 37.6%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	940 U
111-44-4	Bis-(2-Chloroethyl) Ether	1,900 U
95-57-8	2-Chlorophenol	940 U
541-73-1	1,3-Dichlorobenzene	940 U
106-46-7	1,4-Dichlorobenzene	940 U
100-51-6	Benzyl Alcohol	940 U
95-50-1	1,2-Dichlorobenzene	940 U
95-48-7	2-Methylphenol	940 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	940 U
106-44-5	4-Methylphenol	940 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,900 U
67-72-1	Hexachloroethane	940 U
98-95-3	Nitrobenzene	940 U
78-59-1	Isophorone	940 U
88-75-5	2-Nitrophenol	4,700 U
105-67-9	2,4-Dimethylphenol	940 U
65-85-0	Benzoic Acid	9,400 U
111-91-1	bis(2-Chloroethoxy) Methane	940 U
120-83-2	2,4-Dichlorophenol	2,800 U
120-82-1	1,2,4-Trichlorobenzene	940 U
91-20-3	Naphthalene	940 U
106-47-8	4-Chloroaniline	2,800 U
87-68-3	Hexachlorobutadiene	940 U
59-50-7	4-Chloro-3-methylphenol	1,900 U
91-57-6	2-Methylnaphthalene	940 U
77-47-4	Hexachlorocyclopentadiene	4,700 U
88-06-2	2,4,6-Trichlorophenol	4,700 U
95-95-4	2,4,5-Trichlorophenol	4,700 U
91-58-7	2-Chloronaphthalene	940 U
88-74-4	2-Nitroaniline	4,700 U
131-11-3	Dimethylphthalate	940 U
208-96-8	Acenaphthylene	940 U
99-09-2	3-Nitroaniline	5,600 U
83-32-9	Acenaphthene	11,000
51-28-5	2,4-Dinitrophenol	9,400 U
100-02-7	4-Nitrophenol	4,700 U
132-64-9	Dibenzofuran	2,600
606-20-2	2,6-Dinitrotoluene	4,700 U

FORM-1

00300

ANALYTICAL  
RESOURCES  
INCORPORATED

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002539



**ANALYTICAL  
RESOURCES  
INCORPORATED**

**ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS**

Page 2 of 2

Lab Sample ID: T914AG

LIMS ID: 97-17619

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

Sample No: 9738 4941

**DILUTION**

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:50

Percent Moisture: 37.6%

pH: 7.5

<u>CAS Number</u>	<u>Analyte</u>	<u>ug/kg</u>
121-14-2	2,4-Dinitrotoluene	4,700 U
84-66-2	Diethylphthalate	940 U
7005-72-3	4-Chlorophenyl-phenylether	940 U
86-73-7	Fluorene	11,000
100-01-6	4-Nitroaniline	4,700 U
534-52-1	4,6-Dinitro-2-Methylphenol	9,400 U
86-30-6	N-Nitrosodiphenylamine	940 U
101-55-3	4-Bromophenyl-phenylether	940 U
118-74-1	Hexachlorobenzene	940 U
87-86-5	Pentachlorophenol	4,700 U
85-01-8	Phenanthrene	40,000
86-74-8	Carbazole	940 U
120-12-7	Anthracene	8,000
84-74-2	Di-n-Butylphthalate	940 U
206-44-0	Fluoranthene	19,000
129-00-0	Pyrene	17,000
85-68-7	Butylbenzylphthalate	940 U
91-94-1	3,3'-Dichlorobenzidine	4,700 U
56-55-3	Benzo(a)anthracene	2,900
117-81-7	bis(2-Ethylhexyl)phthalate	940 U
218-01-9	Chrysene	3,200
117-84-0	Di-n-Octyl phthalate	940 U
205-99-2	Benzo(b)fluoranthene	1,100
207-08-9	Benzo(k)fluoranthene	1,200
50-32-8	Benzo(a)pyrene	1,100
193-39-5	Indeno(1,2,3-cd)pyrene	940 U
53-70-3	Dibenz(a,h)anthracene	940 U
191-24-2	Benzo(g,h,i)perylene	940 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	D	d5-Phenol	D
2-Fluorobiphenyl	D	2-Fluorophenol	D
d14-p-Terphenyl	D	2,4,6-Tribromophenol	D
d4-1,2-Dichlorobenzene	D	d4-2-Chlorophenol	D

FORM-1

00301

002540

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4941  
DILUTION  
Lab Sample ID: T914AG QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17619 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *OMP*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Naphthalene, Dimethyl Iso	13.47	SVOA	2,400 J N
2. ---	Unknown_PNA	15.41	SVOA	2,500 J
3. ---	Unknown_Aromatic	15.58	SVOA	1,900 J
4. ---	Unknown	18.33	SVOA	4,800 J
5. ---	Unknown	27.96	SVOA	2,400 J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

FORM-1-B

00302

JMB 1/22/98  
002541



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AH

LIMS ID: 97-17620

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4943

WR-SD-SD070-1000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.6%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	73
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	280
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	240
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	39
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	4,600 E
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	1,500
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00303

002567

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AH

LIMS ID: 97-17620

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4943

WR-SD-SD070-1000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	47,500 E 4800 D
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U J
85-01-8	Phenanthrene	12,000 E 1800 D
86-74-8	Carbazole	580 J
120-12-7	Anthracene	3,500 E D
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	7,200 E 9600 D
129-00-0	Pyrene	6,600 E 8400 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	1,700 E 1600 D
117-81-7	bis(2-Ethylhexyl)phthalate	140 P/U
218-01-9	Chrysene	1,900 E 1800 D
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	770
207-08-9	Benzo(k)fluoranthene	770
50-32-8	Benzo(a)pyrene	830
193-39-5	Indeno(1,2,3-cd)pyrene	290
53-70-3	Dibenz(a,h)anthracene	120
191-24-2	Benzo(g,h,i)perylene	290

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.6%	d5-Phenol	58.9%
2-Fluorobiphenyl	53.8%	2-Fluorophenol	57.2%
d14-p-Terphenyl	79.0%	2,4,6-Tribromophenol	66.9%
d4-1,2-Dichlorobenzene	45.6%	d4-2-Chlorophenol	55.9%

FORM-1

00304

JMB  
1/22/98  
002568



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4943

WR-SD-SD070-1000

Lab Sample ID: T914AH  
LIMS ID: 97-17620  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *ony*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Naphthalene,_Dimethyl_Iso	13.66	SVOA	820 J N
2.	-- Naphthalene,_Dimethyl_Iso	13.84	SVOA	1,200 J N
3.	-- Unknown_C13.H12_PNA_____	15.76	SVOA	1,500 J N
4.	-- Unknown_C13.H12_PNA_____	15.84	SVOA	810 J N
5.	-- Unknown_Aromatic_____	15.93	SVOA	1,200 J N
6.	-- Unknown_C14.H12_PNA_____	16.47	SVOA	890 J N
7.	-- Unknown_C14.H12_PNA_____	16.68	SVOA	750 J N
8.	132-65-0 Dibenzothiophene_____	17.23	SVOA	1,300 J N
9.	-- Unknown_C16.H12_PNA_____	18.11	SVOA	720 J N
10.	-- Unknown_C15.H12_PNA_____	18.47	SVOA	1,600 J N
11.	-- Unknown_C15.H12_PNA_____	18.54	SVOA	1,700 J N
12.	-- Unknown_C15.H12_PNA_____	18.61	SVOA	700 J N
13.	-- Unknown_PNA_____	18.72	SVOA	4,000 J N
14.	-- Unknown_____	20.05	SVOA	680 J N
15.	-- Unknown_C17.H12_PNA_____	20.80	SVOA	710 J N
16.	-- Unknown_C17.H12_PNA_____	21.03	SVOA	1,700 J N
17.	-- Unknown_C17.H12_PNA_____	21.15	SVOA	1,100 J N
18.	-- Unknown_C17.H12_PNA_____	21.23	SVOA	780 J N
19.	-- Unknown_Sterol_type_____	27.62	SVOA	900 J N
20.	-- Unknown_Aromatic_____	27.77	SVOA	840 J N

FORM-1-B

00305

JMB  
12/22/97

002569

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AH  
LIMS ID: 97-17620

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4943  
DILUTIONQC Report No: T914-Roy F. Weston  
Project: 1001.006Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:20  
Percent Moisture: 35.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	390 U
111-44-4	Bis-(2-Chloroethyl) Ether	770 U
95-57-8	2-Chlorophenol	390 U
541-73-1	1,3-Dichlorobenzene	390 U
106-46-7	1,4-Dichlorobenzene	390 U
100-51-6	Benzyl Alcohol	390 U
95-50-1	1,2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	390 U
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-Di-N-Propylamine	770 U
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	1,900 U
105-67-9	2,4-Dimethylphenol	390 U
65-85-0	Benzoic Acid	3,900 U
111-91-1	bis(2-Chloroethoxy) Methane	390 U
120-83-2	2,4-Dichlorophenol	1,200 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	390 U
106-47-8	4-Chloraniline	1,200 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-methylphenol	770 U
91-57-6	2-Methylnaphthalene	390 U
77-47-4	Hexachlorocyclopentadiene	1,900 U
88-06-2	2,4,6-Trichlorophenol	1,900 U
95-95-4	2,4,5-Trichlorophenol	1,900 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	1,900 U
131-11-3	Dimethylphthalate	390 U
208-96-8	Acenaphthylene	390 U
99-09-2	3-Nitroaniline	2,300 U
83-32-9	Acenaphthene	5,200
51-28-5	2,4-Dinitrophenol	3,900 U
100-02-7	4-Nitrophenol	1,900 U
132-64-9	Dibenzofuran	1,200
606-20-2	2,6-Dinitrotoluene	1,900 U

FORM-1

00306

002620

JMB  
11/22/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS



Sample No: 9738 4943  
DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

Page 2 of 2

Lab Sample ID: T914AH  
LIMS ID: 97-17620

Matrix: Sediment

Data Release Authorized: *ASB*

Reported: 11/13/97

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:20  
Percent Moisture: 35.6%  
pH: 7.3

CAS Number	Analyte	µg/kg
121-14-2	2,4-Dinitrotoluene	1,900 U
84-66-2	Diethylphthalate	390 U
7005-72-3	4-Chlorophenyl-phenylether	390 U
86-73-7	Fluorene	4,800
100-01-6	4-Nitroaniline	1,900 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,900 U
86-30-6	N-Nitrosodiphenylamine	390 U
101-55-3	4-Bromophenyl-phenylether	390 U
118-74-1	Hexachlorobenzene	390 U
87-86-5	Pentachlorophenol	1,900 U
85-01-8	Phenanthrene	18,000
86-74-8	Carbazole	390 U
120-12-7	Anthracene	3,500
84-74-2	Di-n-Butylphthalate	390 U
206-44-0	Fluoranthene	9,600
129-00-0	Pyrene	8,400
85-68-7	Butylbenzylphthalate	390 U
91-94-1	3,3'-Dichlorobenzidine	1,900 U
56-55-3	Benzo(a)anthracene	1,600
117-81-7	bis(2-Ethyl)hexyl phthalate	390 U
218-01-9	Chrysene	1,800
117-84-0	Di-n-Octyl phthalate	390 U
205-99-2	Benzo(b)fluoranthene	620
207-08-9	Benzo(k)fluoranthene	630
50-32-8	Benzo(a)pyrene	630
193-39-5	Indeno(1,2,3-cd)pyrene	390 U
53-70-3	Dibenz(a,h)anthracene	390 U
191-24-2	Benzo(g,h,i)perylene	390 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	46.4%	d5-Phenol	49.1%
2-Fluorobiphenyl	55.2%	2-Fluorophenol	49.6%
d14-p-Terphenyl	70.4%	2,4,6-Tribromophenol	56.5%
d4-1,2-Dichlorobenzene	42.4%	d4-2-Chlorophenol	46.4%

FORM-1

00307

JMB  
1/22/98  
002621



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4943  
DILUTION  
Lab Sample ID: T914AH QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17620 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *ONP*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Naphthalene,_Dimethyl_Iso	13.48	SVOA	1,100 J N
2. ---	Unknown_Aromatic_____	15.42	SVOA	1,300 J
3. ---	Unknown_Aromatic_____	15.57	SVOA	900 J
4. ---	Unknown_C15.H12_PNA_____	18.11	SVOA	780 J
5. ---	Unknown_C15.H12_PNA_____	18.16	SVOA	870 J
6. ---	Unknown_Aromatic_____	18.33	SVOA	2,300 J
7. ---	Unknown_C17.H12_PNA_____	20.65	SVOA	890 J
8. ---	Unknown_Aromatic_____	21.95	SVOA	850 J
9. ---	Unknown_Aromatic_____	22.61	SVOA	880 J
10. ---	Unknown_Hydrocarbon_____	23.43	SVOA	1,100 J
11. ---	Unknown_____	27.96	SVOA	870 J
12. _____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____

FORM-1-B

00308

002622  
JME  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AI

LIMS ID: 97-17621

Matrix: Sediment

Data Release Authorized: *✓*

Reported: 11/13/97

Sample No: 9738 4944

WR-SD-SD072-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nti

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 36.9%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	250
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	210
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	130
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	85
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	1,500
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	220
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

002655  
JMB  
1/22/98

00300



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4944

WR-SD- SD672-0000

Lab Sample ID: T914AI

LIMS ID: 97-17621

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized: *CHP*

Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid	6.60	SVOA	280 J N
2.	-- Unknown_Organic_Acid	11.88	SVOA	270 J N
3.	-- Naphthalene,_Dimethyl_Iso	13.82	SVOA	240 J N
4.	-- Unknown	16.80	SVOA	290 J N
5.	-- Unknown_Organic_Acid	17.01	SVOA	280 J N
6.	-- Unknown_Organic_Acid	17.66	SVOA	270 J N
7.	-- Unknown_C15.H12_PNA	18.45	SVOA	300 J N
8.	-- Unknown_C15.H12_PNA	18.58	SVOA	240 J N
9.	-- Unknown_Aromatic	18.68	SVOA	470 J N
10.	-- Unknown_Organic_Acid	18.76	SVOA	400 J N
11.	-- Unknown	19.13	SVOA	240 J N
12.	-- Unknown_Aromatic	20.97	SVOA	600 J N
13.	-- Unknown	22.27	SVOA	640 J N
14.	-- Unknown_Aldehyde	24.66	SVOA	260 J N
15.	-- Unknown_C20.H12_PNA	25.22	SVOA	230 J N
16.	-- Unknown_Sterol_type	27.63	SVOA	850 J N
17.	-- Unknown_Aromatic	27.78	SVOA	350 J N
18.	-- Unknown	27.96	SVOA	340 J N
19.	-- Unknown_Sterol_type	28.07	SVOA	610 J N
20.	-- Unknown_Sterol_type	28.51	SVOA	350 J N

FORM-1-B

002657

00310

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AI

LIMS ID: 97-17621

Matrix: Sediment

Data Release Authorized: *BWP*

Reported: 11/13/97

Sample No: 9738 4944

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 36.9%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	960
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	2,200 E
86-74-8	Carbazole	86
120-12-7	Anthracene	440
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,600 E
129-00-0	Pyrene	2,100 E
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	700
117-81-7	bis(2-Ethylhexyl)phthalate	210 B
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	800
207-08-9	Benzo(k)fluoranthene	630
50-32-8	Benzo(a)pyrene	980
193-39-5	Indeno(1,2,3-cd)pyrene	560
53-70-3	Dibenz(a,h)anthracene	160
191-24-2	Benzo(g,h,i)perylene	600

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.6%	d5-Phenol	65.4%
2-Fluorobiphenyl	62.2%	2-Fluorophenol	67.4%
d14-p-Terphenyl	91.2%	2,4,6-Tribromophenol	74.7%
d4-1,2-Dichlorobenzene	57.2%	d4-2-Chlorophenol	64.2%

FORM-1

00310A

-002656-

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AI

LIMS ID: 97-17621

Matrix: Sediment

Data Release Authorized: *ABH*

Reported: 11/13/97

Sample No: 9738 4944  
DILUTIONQC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 36.9%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	99 U
111-44-4	Bis-(2-Chloroethyl) Ether	200 U
95-57-8	2-Chlorophenol	99 U
541-73-1	1,3-Dichlorobenzene	99 U
106-46-7	1,4-Dichlorobenzene	99 U
100-51-6	Benzyl Alcohol	99 U
95-50-1	1,2-Dichlorobenzene	99 U
95-48-7	2-Methylphenol	99 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	99 U
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	200 U
67-72-1	Hexachloroethane	99 U
98-95-3	Nitrobenzene	99 U
78-59-1	Isophorone	99 U
88-75-5	2-Nitrophenol	490 U
105-67-9	2,4-Dimethylphenol	99 U
65-85-0	Benzoic Acid	990 U
111-91-1	bis(2-Chloroethoxy) Methane	99 U
120-83-2	2,4-Dichlorophenol	300 U
120-82-1	1,2,4-Trichlorobenzene	99 U
91-20-3	Naphthalene	190
106-47-8	4-Chloroaniline	300 U
87-68-3	Hexachlorobutadiene	99 U
59-50-7	4-Chloro-3-methylphenol	200 U
91-57-6	2-Methylnaphthalene	100
77-47-4	Hexachlorocyclopentadiene	490 U
88-06-2	2,4,6-Trichlorophenol	490 U
95-95-4	2,4,5-Trichlorophenol	490 U
91-58-7	2-Chloronaphthalene	99 U
88-74-4	2-Nitroaniline	490 U
131-11-3	Dimethylphthalate	99 U
208-96-8	Acenaphthylene	99 U
99-09-2	3-Nitroaniline	590 U
83-32-9	Acenaphthene	1,200
51-28-5	2,4-Dinitrophenol	990 U
100-02-7	4-Nitrophenol	490 U
132-64-9	Dibenzofuran	190
606-20-2	2,6-Dinitrotoluene	490 U

FORM-1

00311

*JMB*  
1/22/98~~002708~~

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MSSample No: 9738 4944  
DILUTION

Page 2 of 2

Lab Sample ID: T914AI

QC Report No: T914-Roy F. Weston  
Project: 1001.006

LIMS ID: 97-17621

Matrix: Sediment

Data Release Authorized: *JMB*Date Sampled: 09/20/97  
Date Received: 09/24/97

Reported: 11/13/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 36.9%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	490 U
84-66-2	Diethylphthalate	99 U
7005-72-3	4-Chlorophenyl-phenylether	99 U
86-73-7	Fluorene	820
100-01-6	4-Nitroaniline	490 U
534-52-1	4,6-Dinitro-2-Methylphenol	990 U
86-30-6	N-Nitrosodiphenylamine	99 U
101-55-3	4-Bromophenyl-phenylether	99 U
118-74-1	Hexachlorobenzene	99 U
87-86-5	Pentachlorophenol	490 U
85-01-8	Phenanthrene	1,800
86-74-8	Carbazole	99 U
120-12-7	Anthracene	290
84-74-2	Di-n-Butylphthalate	99 U
206-44-0	Fluoranthene	1,500
129-00-0	Pyrene	1,600
85-68-7	Butylbenzylphthalate	99 U
91-94-1	3,3'-Dichlorobenzidine	490 U
56-55-3	Benzo(a)anthracene	570
117-81-7	bis(2-Ethylhexyl) phthalate	140 u
218-01-9	Chrysene	850
117-84-0	Di-n-Octyl phthalate	99 U
205-99-2	Benzo(b)fluoranthene	480
207-08-9	Benzo(k)fluoranthene	580
50-32-8	Benzo(a)pyrene	710
193-39-5	Indeno(1,2,3-cd)pyrene	440
53-70-3	Dibenz(a,h)anthracene	110
191-24-2	Benzo(g,h,i)perylene	600

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.4%	d5-Phenol	56.3%
2-Fluorobiphenyl	59.8%	2-Fluorophenol	57.7%
d14-p-Terphenyl	69.0%	2,4,6-Tribromophenol	66.3%
d4-1,2-Dichlorobenzene	49.6%	d4-2-Chlorophenol	51.9%

FORM-1

00312

002709 *JMB*  
*1/21/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4944  
DILUTION  
Lab Sample ID: T914AI QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17621 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *DNP*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Organic_Acid_____	11.33	SVOA	260 J N
2. ---	Unknown_C15.H12_PNA_____	18.16	SVOA	310 J N
3. ---	Unknown_Organic_Acid_____	18.32	SVOA	870 J N
4. 7704-34-9	Sulfur_____	19.46	SVOA	260 J N
5. ---	Unknown_____	19.70	SVOA	490 J N
6. ---	Unknown_Aromatic_____	20.63	SVOA	670 J
7. ---	Unknown_C17.H12_PNA_____	20.78	SVOA	260 J
8. ---	Unknown_PNA_+ C.E._____	20.85	SVOA	300 J
9. ---	Unknown_____	21.95	SVOA	830 J
10. ---	Unknown_____	22.25	SVOA	250 J
11. ---	Unknown_C19.H14_PNA_____	23.18	SVOA	240 J
12. ---	Unknown_Aromatic_____	23.37	SVOA	290 J
13. ---	Unknown_Aldehyde_____	24.28	SVOA	280 J
14. ---	Unknown_C20.H12_PNA_____	24.86	SVOA	560 J
15. ---	Unknown_____	25.93	SVOA	230 J
16. ---	Unknown_C22.H12_PNA_____	27.45	SVOA	240 J
17. ---	Unknown_____	27.63	SVOA	1,000 J
18. ---	Unknown_____	27.81	SVOA	480 J
19. ---	Unknown_____	27.96	SVOA	1,600 J
20. ---	Unknown_Sterol_type_____	28.43	SVOA	400 J

002710 *JML*  
*1/22/*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AJ

LIMS ID: 97-17622

Matrix: Sediment

Data Release Authorized: *app*

Reported: 11/13/97

Sample No: 9738 4945

WR-SD- SD075-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	97
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	56 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	350
106-47-8	4-Chloroaniline	56 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	180
77-47-4	Hexachlorocyclopentadiene	94 U
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	140
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	4,200-3800 D
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	340
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00314

002759

JMB  
11/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AJ

LIMS ID: 97-17622

Matrix: Sediment

Data Release Authorized: *✓✓✓*

Reported: 11/13/97

Sample No: 9738 4945

WR-SD-SD075-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	2,900 E 2400 D
100-01-6	4-Nitroaniline	94 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U J
85-01-8	Phenanthrene	5,000 E 5500 D
86-74-8	Carbazole	170 J
120-12-7	Anthracene	1,300
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	3,300 E 3500 D
129-00-0	Pyrene	3,000 E 3300 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	1,500
117-81-7	bis(2-Ethylhexyl)phthalate	700 S
218-01-9	Chrysene	1,900 E 1700 D
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	1,100
207-08-9	Benzo(k)fluoranthene	1,100
50-32-8	Benzo(a)pyrene	1,300
193-39-5	Indeno(1,2,3-cd)pyrene	730
53-70-3	Dibenz(a,h)anthracene	220
191-24-2	Benzo(g,h,i)perylene	810

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.6%	d5-Phenol	51.7%
2-Fluorobiphenyl	54.8%	2-Fluorophenol	55.8%
d14-p-Terphenyl	77.8%	2,4,6-Tribromophenol	63.0%
d4-1,2-Dichlorobenzene	48.6%	d4-2-Chlorophenol	52.1%

FORM-1

00315

JMB  
11/22/98  
002760



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4945

WR-SD- SD075- 0000

Lab Sample ID: T914AJ  
LIMS ID: 97-17622  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *GNR*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Naphthalene, _Ethyl_Isomer	13.53	SVOA	390 J N
2.	-- Naphthalene, _Dimethyl_Iso	13.66	SVOA	490 J N
3.	-- Naphthalene, _Dimethyl_Iso	13.83	SVOA	830 J N
4.	-- Unknown_Aromatic _____	15.76	SVOA	380 J N
5.	-- Unknown_Aromatic _____	15.93	SVOA	520 J N
6.	132-65-0 Dibenzothiophene _____	17.23	SVOA	380 J N
7.	-- Unknown_C15.H12_PNA _____	18.52	SVOA	470 J N
8.	-- Unknown_C15.H12_PNA _____	18.59	SVOA	380 J N
9.	-- Unknown_____	18.69	SVOA	1,700 J N
10.	-- Unknown_____	19.13	SVOA	430 J N
11.	-- Unknown_____	20.06	SVOA	390 J N
12.	-- Unknown_PNA _____	20.53	SVOA	370 J N
13.	-- Unknown_C17.H12_PNA _____	20.80	SVOA	380 J N
14.	-- Unknown_Aromatic _____	21.04	SVOA	3,800 J N
15.	-- Unknown_C17.H12_PNA _____	21.17	SVOA	660 J N
16.	-- Unknown_C17.H12_PNA _____	21.24	SVOA	510 J N
17.	-- Benzothiophene_Isomer _____	22.26	SVOA	480 J N
18.	-- Unknown_Sterol_type _____	27.63	SVOA	410 J N
19.	-- Unknown_____	27.97	SVOA	380 J N
20.	-- Unknown_Sterol_type _____	28.08	SVOA	530 J N

FORM-1-B

00316

*JMB*  
12/22/97  
003761

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AJ

LIMS ID: 97-17622

Matrix: Sediment

Data Release Authorized: ✓

Reported: 11/13/97

Sample No: 9738 4945  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 37.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	190 U
111-44-4	Bis-(2-Chloroethyl) Ether	380 U
95-57-8	2-Chlorophenol	190 U
541-73-1	1,3-Dichlorobenzene	190 U
106-46-7	1,4-Dichlorobenzene	190 U
100-51-6	Benzyl Alcohol	190 U
95-50-1	1,2-Dichlorobenzene	190 U
95-48-7	2-Methylphenol	190 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	190 U
106-44-5	4-Methylphenol	190 U
621-64-7	N-Nitroso-Di-N-Propylamine	380 U
67-72-1	Hexachloroethane	190 U
98-95-3	Nitrobenzene	190 U
78-59-1	Isophorone	190 U
88-75-5	2-Nitrophenol	940 U
105-67-9	2,4-Dimethylphenol	190 U
65-85-0	Benzoic Acid	1,900 U
111-91-1	bis(2-Chloroethoxy) Methane	190 U
120-83-2	2,4-Dichlorophenol	560 U
120-82-1	1,2,4-Trichlorobenzene	190 U
91-20-3	Naphthalene	270
106-47-8	4-Chloroaniline	560 U
87-68-3	Hexachlorobutadiene	190 U
59-50-7	4-Chloro-3-methylphenol	380 U
91-57-6	2-Methylnaphthalene	190 U
77-47-4	Hexachlorocyclopentadiene	940 U
88-06-2	2,4,6-Trichlorophenol	940 U
95-95-4	2,4,5-Trichlorophenol	940 U
91-58-7	2-Chloronaphthalene	190 U
88-74-4	2-Nitroaniline	940 U
131-11-3	Dimethylphthalate	190 U
208-96-8	Acenaphthylene	190 U
99-09-2	3-Nitroaniline	1,100 U
83-32-9	Acenaphthene	3,800
51-28-5	2,4-Dinitrophenol	1,900 U
100-02-7	4-Nitrophenol	940 U
132-64-9	Dibenzofuran	260
606-20-2	2,6-Dinitrotoluene	940 U

FORM-1

00317

JMB 1/22/98  
002812

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AJ  
LIMS ID: 97-17622

Matrix: Sediment

Data Release Authorized: *MB*  
Reported: 11/13/97Sample No: 9738 4945  
DILUTIONQC Report No: T914-Roy F. Weston  
Project: 1001.006Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 53.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 37.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	940 U
84-66-2	Diethylphthalate	190 U
7005-72-3	4-Chlorophenyl-phenylether	190 U
86-73-7	Fluorene	2,400
100-01-6	4-Nitroaniline	940 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,900 U
86-30-6	N-Nitrosodiphenylamine	190 U
101-55-3	4-Bromophenyl-phenylether	190 U
118-74-1	Hexachlorobenzene	190 U
87-86-5	Pentachlorophenol	940 U
85-01-8	Phenanthrene	5,500
86-74-8	Carbazole	190 U
120-12-7	Anthracene	920
84-74-2	Di-n-Butylphthalate	190 U
206-44-0	Fluoranthene	3,500
129-00-0	Pyrene	3,300
85-68-7	Butylbenzylphthalate	190 U
91-94-1	3,3'-Dichlorobenzidine	940 U
56-55-3	Benzo(a)anthracene	1,200
117-81-7	bis(2-Ethylhexyl)phthalate	430 U
218-01-9	Chrysene	1,700
117-84-0	Di-n-Octyl phthalate	190 U
205-99-2	Benzo(b)fluoranthene	710
207-08-9	Benzo(k)fluoranthene	820
50-32-8	Benzo(a)pyrene	960
193-39-5	Indeno(1,2,3-cd)pyrene	540
53-70-3	Dibenz(a,h)anthracene	190 U
191-24-2	Benzo(g,h,i)perylene	740

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	42.0%	d5-Phenol	41.9%
2-Fluorobiphenyl	48.4%	2-Fluorophenol	45.9%
d14-p-Terphenyl	60.0%	2,4,6-Tribromophenol	56.3%
d4-1,2-Dichlorobenzene	40.8%	d4-2-Chlorophenol	40.5%

FORM-1

00318

*JMB*  
*002813 1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4945  
DILUTION  
Lab Sample ID: T914AJ  
QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17622  
Project:  
Matrix: Sediment  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Data Release Authorized: *ONP*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	Naphthalene,_Ethyl_Isomer	13.18	SVOA	400 J N
2.	Naphthalene,_Dimethyl_Iso	13.30	SVOA	390 J
3.	Naphthalene,_Dimethyl_Iso	13.47	SVOA	500 J
4.	Naphthalene,_Dimethyl_Iso	13.70	SVOA	440 J
5.	Unknown_Hydrocarbon_____	16.09	SVOA	470 J
6.	Unknown_Aromatic_____	18.33	SVOA	940 J
7.	Unknown_Aromatic_____	20.63	SVOA	3,200 J
8.	Unknown_____	21.53	SVOA	520 J
9.	Unknown_____	21.95	SVOA	1,100 J
10.	Unknown_Hydrocarbon_____	22.19	SVOA	550 J
11.	Unknown_Hydrocarbon_____	23.44	SVOA	930 J
12.	Unknown_Hydrocarbon_____	24.59	SVOA	830 J
13.	Unknown_C20.H12_PNA_____	24.86	SVOA	790 J
14.	Unknown_____	27.63	SVOA	800 J
15.	Unknown_____	27.96	SVOA	1,000 J
16.	_____	_____	_____	_____
17.	_____	_____	_____	_____
18.	_____	_____	_____	_____
19.	_____	_____	_____	_____
20.	_____	_____	_____	_____

FORM-1-B

00319

002814 *JMB*  
*1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AK

LIMS ID: 97-17623

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4947

WR-SD- SD677-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.1%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	68
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	300
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	430
77-47-4	Hexachlorocyclopentadiene	95 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	140
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	<i>-2,600</i> <i>H</i> 240C <i>J</i>
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	160
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00320

002854 11/22/98  
*JME*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AK

LIMS ID: 97-17623

Matrix: Sediment

Data Release Authorized: ~~DRW~~

Reported: 11/13/97

Sample No: 9738 4947

WR-SD- SD077-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/03/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.1%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	1,400
100-01-6	4-Nitroaniline	95 U J
534-52-1	4,6-Dinitro-2-Methylphenol	190 U D
86-30-6	N-Nitrosodiphenylamine	19 U J
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U J
85-01-8	Phenanthrene	2,100 E 2200 D
86-74-8	Carbazole	700 J
120-12-7	Anthracene	420
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	1,800 E 1700 D
129-00-0	Pyrene	2,100 E 2500 D
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U J
56-55-3	Benzo(a)anthracene	740
117-81-7	bis(2-Ethylhexyl)phthalate	180 P U
218-01-9	Chrysene	920
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	700
207-08-9	Benzo(k)fluoranthene	670
50-32-8	Benzo(a)pyrene	890
193-39-5	Indeno(1,2,3-cd)pyrene	380
53-70-3	Dibenz(a,h)anthracene	140
191-24-2	Benzo(g,h,i)perylene	420 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	63.6%	d5-Phenol	71.4%
2-Fluorobiphenyl	60.7%	2-Fluorophenol	79.0%
d14-p-Terphenyl	75.9%	2,4,6-Tribromophenol	81.7%
d4-1,2-Dichlorobenzene	56.2%	d4-2-Chlorophenol	65.5%

FORM-1

00321

MB  
1/22/98

002855



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4947

WR-SD- SD077-0000

Lab Sample ID: T914AK  
LIMS ID: 97-17623  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *DMB*  
Reported: 11/13/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene, _1-methyl_	14.08	SVOA	730 JN
2. --	Unknown_Aromatic	15.04	SVOA	390 JN
3. --	Naphthalene, _Dimethyl_Iso	15.13	SVOA	420 JN
4. --	Naphthalene, _Dimethyl_Iso	15.31	SVOA	850 JN
5. --	Unknown_Aromatic	16.20	SVOA	350 JN
6. --	Unknown_Aromatic	20.20	SVOA	900 JN
7. --	Unknown	21.56	SVOA	520 JN
8. --	Unknown_Aromatic	22.49	SVOA	1,200 JN
9. --	Unknown	23.36	SVOA	1,500 JN
10. --	Unknown	23.63	SVOA	700 JN
11. --	Unknown	23.78	SVOA	4,400 JN
12. --	Unknown	23.93	SVOA	2,000 JN
13. --	Unknown	24.14	SVOA	2,300 JN
14. --	Unknown_Aldehyde	26.13	SVOA	540 JN
15. --	Unknown_C20.H12_PNA	26.76	SVOA	400 JN
16. --	Unknown_Aldehyde	27.25	SVOA	610 JN
17. --	Unknown_Sterol_type	27.77	SVOA	540 JN
18. --	Unknown_Sterol_type	29.31	SVOA	5,800 JN
19. --	Unknown	29.43	SVOA	4,300 JN
20. --	Unknown	29.52	SVOA	1,400 JN

FORM-1-B

00322

*JMB*  
12/22/97

~~002856~~

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AK

LIMS ID: 97-17623

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4947  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 38.1%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	95 U
111-44-4	Bis-(2-Chloroethyl) Ether	190 U
95-57-8	2-Chlorophenol	95 U
541-73-1	1,3-Dichlorobenzene	95 U
106-46-7	1,4-Dichlorobenzene	95 U
100-51-6	Benzyl Alcohol	95 U
95-50-1	1,2-Dichlorobenzene	95 U
95-48-7	2-Methylphenol	95 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	95 U
106-44-5	4-Methylphenol	95 U
621-64-7	N-Nitroso-Di-N-Propylamine	190 U
67-72-1	Hexachloroethane	95 U
98-95-3	Nitrobenzene	95 U
78-59-1	Isophorone	95 U
88-75-5	2-Nitrophenol	470 U
105-67-9	2,4-Dimethylphenol	95 U
65-85-0	Benzoic Acid	950 U
111-91-1	bis(2-Chloroethoxy) Methane	95 U
120-83-2	2,4-Dichlorophenol	280 U
120-82-1	1,2,4-Trichlorobenzene	95 U
91-20-3	Naphthalene	280
106-47-8	4-Chloroaniline	280 U
87-68-3	Hexachlorobutadiene	95 U
59-50-7	4-Chloro-3-methylphenol	190 U
91-57-6	2-Methylnaphthalene	330
77-47-4	Hexachlorocyclopentadiene	470 U
88-06-2	2,4,6-Trichlorophenol	470 U
95-95-4	2,4,5-Trichlorophenol	470 U
91-58-7	2-Chloronaphthalene	95 U
88-74-4	2-Nitroaniline	470 U
131-11-3	Dimethylphthalate	95 U
208-96-8	Acenaphthylene	120
99-09-2	3-Nitroaniline	570 U
83-32-9	Acenaphthene	2,400
51-28-5	2,4-Dinitrophenol	950 U
100-02-7	4-Nitrophenol	470 U
132-64-9	Dibenzofuran	160
606-20-2	2,6-Dinitrotoluene	470 U

FORM-1

00323

002907

JMB  
11/22/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AK

LIMS ID: 97-17623

Matrix: Sediment

Data Release Authorized: *BNB*

Reported: 11/13/97

Sample No. 9738 4947  
DILUTION

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 11/07/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 38.1%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	470 U
84-66-2	Diethylphthalate	95 U
7005-72-3	4-Chlorophenyl-phenylether	95 U
86-73-7	Fluorene	1,200
100-01-6	4-Nitroaniline	470 U
534-52-1	4,6-Dinitro-2-Methylphenol	950 U
86-30-6	N-Nitrosodiphenylamine	95 U
101-55-3	4-Bromophenyl-phenylether	95 U
118-74-1	Hexachlorobenzene	95 U
87-86-5	Pentachlorophenol	470 U
85-01-8	Phenanthrene	2,000
86-74-8	Carbazole	180
120-12-7	Anthracene	370
84-74-2	Di-n-Butylphthalate	95 U
206-44-0	Fluoranthene	1,700
129-00-0	Pyrene	2,500
85-68-7	Butylbenzylphthalate	95 U
91-94-1	3,3'-Dichlorobenzidine	470 U
56-55-3	Benzo(a)anthracene	700
117-81-7	bis(2-Ethylhexyl)phthalate	190 U
218-01-9	Chrysene	970
117-84-0	Di-n-Octyl phthalate	95 U
205-99-2	Benzo(b)fluoranthene	650
207-08-9	Benzo(k)fluoranthene	560
50-32-8	Benzo(a)pyrene	750
193-39-5	Indeno(1,2,3-cd)pyrene	440
53-70-3	Dibenz(a,h)anthracene	140
191-24-2	Benzo(g,h,i)perylene	560

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.2%	d5-Phenol	61.9%
2-Fluorobiphenyl	63.4%	2-Fluorophenol	63.2%
d14-p-Terphenyl	83.4%	2,4,6-Tribromophenol	78.3%
d4-1,2-Dichlorobenzene	50.6%	d4-2-Chlorophenol	54.1%

FORM-1

00324

002908

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4947  
DILUTION  
Lab Sample ID: T914AK QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17623 Project:  
Matrix: Sediment 1001.006  
Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *ans*  
Reported: 11/13/97

Date Analyzed: 11/07/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene, 1-methyl-	12.26	SVOA	500 JN
2. ---	Unknown_Aromatic	13.19	SVOA	350 J N
3. ---	Naphthalene, Dimethyl_Iso	13.48	SVOA	320 J
4. ---	Naphthalene, Trimethyl_Is	14.64	SVOA	350 J
5. ---	Unknown_Organic_Acid	18.34	SVOA	1,200 J
6. ---	Unknown_C16.H10_PNA	19.71	SVOA	590 J
7. ---	Unknown_Aromatic	20.63	SVOA	520 J
8. ---	Unknown	21.53	SVOA	540 J
9. ---	Unknown	21.93	SVOA	2,800 J
10. ---	Unknown	22.09	SVOA	990 J
11. ---	Unknown	22.27	SVOA	1,400 J
12. ---	Unknown_Sterol_type	25.93	SVOA	480 J
13. ---	Unknown	27.52	SVOA	5,600 J
14. ---	Unknown	27.65	SVOA	4,000 J
15. ---	Unknown	27.84	SVOA	1,800 J
16. ---	Unknown	28.00	SVOA	6,800 J
17. ---	Unknown	28.19	SVOA	480 J
18. ---	Unknown	28.27	SVOA	2,500 J
19. ---	Unknown	28.35	SVOA	1,500 J
20. ---	Unknown_Sterol_type	28.46	SVOA	1,500 J

FORM-1-B

00325

JMB  
1/22/98  
002909



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AL

LIMS ID: 97-17624

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4950

WR-SD- SDc78- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 30.4%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	22
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	48
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	55
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	24
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	46
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	20
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00326

002959

JMB  
1/22/98

## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AL

LIMS ID: 97-17624

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/13/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9738 4950

WR-SD- SD078- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 30.4%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	34
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	230
86-74-8	Carbazole	40 <i>J</i>
120-12-7	Anthracene	60
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	440
129-00-0	Pyrene	580
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	240
117-81-7	bis(2-Ethylhexyl)phthalate	210 <i>P</i>
218-01-9	Chrysene	340
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	300
207-08-9	Benzo(k)fluoranthene	310
50-32-8	Benzo(a)pyrene	360
193-39-5	Indeno(1,2,3-cd)pyrene	190
53-70-3	Dibenz(a,h)anthracene	74
191-24-2	Benzo(g,h,i)perylene	200

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.4%	d5-Phenol	56.5%
2-Fluorobiphenyl	56.2%	2-Fluorophenol	60.5%
d14-p-Terphenyl	78.4%	2,4,6-Tribromophenol	67.3%
d4-1,2-Dichlorobenzene	47.8%	d4-2-Chlorophenol	56.7%

FORM-1

00327

002960

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4950

WR-SD- SD078-0000

Lab Sample ID: T914AL  
LIMS ID: 97-17624  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *BNB*  
Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	17.65	SVOA	140 J N
2.	-- Unknown_Aromatic_____	18.67	SVOA	160 J N
3.	-- Unknown_Organic_Acid_____	18.75	SVOA	240 J N
4.	-- Unknown_____	19.17	SVOA	180 J N
5.	-- Unknown_Acid_Ester_____	20.36	SVOA	240 J N
6.	-- Unknown_Aromatic_____	20.96	SVOA	200 J N
7.	-- Unknown_Chloro_Aro_____	21.31	SVOA	340 J N
8.	50-29-3 Chlorophenothane_____	21.88	SVOA	220 J N
9.	-- Unknown_____	22.27	SVOA	290 J N
10.	-- Unknown_Aldehyde_____	24.66	SVOA	200 J N
11.	-- Unknown_Sterol_type_____	27.63	SVOA	620 J N
12.	-- Unknown_Aromatic_____	27.78	SVOA	300 J N
13.	-- Unknown_____	27.97	SVOA	390 J N
14.	-- Unknown_Sterol_type_____	28.08	SVOA	980 J N
15.	-- Unknown_Aromatic_____	28.23	SVOA	240 J N
16.	-- Unknown_Aromatic_____	28.30	SVOA	240 J N
17.	-- Unknown_____	28.40	SVOA	260 J N
18.	-- Unknown_____	28.51	SVOA	310 J N
19.	-- Unknown_Sterol_type_____	28.56	SVOA	380 J N
20.	-- Unknown_____	28.76	SVOA	320 J N

FORM-1-B

00328

*JMB*  
*11/22/97*  
~~003281~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AM

LIMS ID: 97-17625

Matrix: Sediment

Data Release Authorized: *AB*

Reported: 11/13/97

Sample No: 9738 4952

WR-SD-SD079-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 22.8%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	92
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	44
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	36
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	42
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00329

003012 JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AM

LIMS ID: 97-17625

Matrix: Sediment

Data Release Authorized: *MM*

Reported: 11/13/97

Sample No: 9738 4952

WR-SD-SD079-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/29/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 22.8%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	37
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U <i>J</i>
85-01-8	Phenanthrene	160
86-74-8	Carbazole	21 <i>J</i>
120-12-7	Anthracene	76
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	280
129-00-0	Pyrene	350
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	120
117-81-7	bis(2-Ethylhexyl)phthalate	96 <i>S</i> U
218-01-9	Chrysene	220
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	160
207-08-9	Benzo(k)fluoranthene	160
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	62
53-70-3	Dibenz(a,h)anthracene	24
191-24-2	Benzo(g,h,i)perylene	58

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	52.8%	d5-Phenol	46.6%
2-Fluorobiphenyl	45.5%	2-Fluorophenol	48.5%
d14-p-Terphenyl	83.6%	2,4,6-Tribromophenol	58.3%
d4-1,2-Dichlorobenzene	44.6%	d4-2-Chlorophenol	45.9%

FORM-1

00330

*JMB*  
~~003013~~ 1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4952

WR-SD-SD079-0000

Lab Sample ID: T914AM

LIMS ID: 97-17625

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *awb*

Reported: 11/13/97

Date Analyzed: 10/29/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	7.00	SVOA	61 J N R
2. --	Unknown_____	7.09	SVOA	67 J N
3. --	Unknown_____	7.95	SVOA	120 J N
4. --	Unknown_Ketone_____	9.96	SVOA	230 J N
5. --	Unknown_Hydrocarbon_____	14.07	SVOA	74 J N
6. --	Unknown_Cycloalkane_____	14.23	SVOA	72 J N
7. --	Unknown_____	18.43	SVOA	50 J N
8. --	Unknown_Aromatic_____	18.67	SVOA	54 J N
9. --	Unknown_____	18.91	SVOA	56 J N
10. --	Unknown_Hydrocarbon_____	18.98	SVOA	42 J N
11. --	Unknown_____	19.12	SVOA	43 J N
12. 19407-28-4	Phenanthrene, 1,2,3,4,4a,	19.71	SVOA	81 J N
13. --	Unknown_Aromatic_____	20.03	SVOA	52 J N
14. --	Unknown_Aromatic_____	20.96	SVOA	170 J N
15. --	Unknown_Aldehyde_____	24.66	SVOA	61 J N
16. --	Unknown_Sterol_type_____	26.53	SVOA	120 J N
17. --	Unknown_____	27.96	SVOA	97 J N
18. --	Unknown_____	28.05	SVOA	250 J N
19. --	Unknown_Aldehyde_____	28.22	SVOA	99 J N
20. --	Unknown_Sterol_type_____	28.50	SVOA	200 J N

FORM-1-B

00331

JMB  
12/22/97  
003314



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AN

LIMS ID: 97-17626

Matrix: Sediment

Data Release Authorized: *OMH*

Reported: 11/13/97

Sample No: 9738 4954

WR-SD-SDC86-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.0%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	420
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00332

003063 1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AN

LIMS ID: 97-17626

Matrix: Sediment

Data Release Authorized: *AW*

Reported: 11/13/97

Sample No: 9738 4954

WR-SD-SD086-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.0%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	26
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	56
129-00-0	Pyrene	44
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U <i>J</i>
56-55-3	Benzo(a)anthracene	20
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>B</i> <i>U</i>
218-01-9	Chrysene	35
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	33
207-08-9	Benzo(k)fluoranthene	22
50-32-8	Benzo(a)pyrene	22
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	33.8%	d5-Phenol	35.2%
2-Fluorobiphenyl	35.6%	2-Fluorophenol	37.6%
d14-p-Terphenyl	39.8%	2,4,6-Tribromophenol	47.5%
d4-1,2-Dichlorobenzene	18.3%	d4-2-Chlorophenol	34.1%

FORM-1

00333

*JMB*  
1/22/98  
00333



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4954

WR-SD- SD086-0000

Lab Sample ID: T914AN

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17626

Project: 1001.006

Matrix: Sediment

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *MB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	7.11	SVOA	230 J N
2.	-- Unknown_Organic_Acid_____	12.32	SVOA	440 J N
3.	-- Unknown_Organic_Acid_____	17.42	SVOA	110 J N
4.	-- Unknown_Organic_Acid_____	18.07	SVOA	130 J N
5.	-- Unknown_Organic_Acid_____	19.18	SVOA	110 J N
6.	-- Unknown_Aromatic_____	21.35	SVOA	400 J N
7.	-- Unknown_Aromatic_____	24.11	SVOA	250 J N
8.	-- Unknown_____	26.35	SVOA	170 J N
9.	-- Unknown_____	26.52	SVOA	140 J N
10.	-- Unknown_____	26.77	SVOA	180 J N
11.	-- Unknown_Sterol_type_____	26.91	SVOA	160 J N
12.	-- Unknown_Sterol_type_____	26.97	SVOA	150 J N
13.	-- Unknown_Sterol_type_____	27.64	SVOA	120 J N
14.	-- Unknown_Sterol_type_____	28.01	SVOA	740 J N
15.	-- Unknown_____	28.15	SVOA	280 J N
16.	-- Unknown_____	28.32	SVOA	410 J N
17.	-- Unknown_Sterol_type_____	28.43	SVOA	550 J N
18.	-- Unknown_____	28.58	SVOA	300 J N
19.	-- Unknown_____	28.75	SVOA	120 J N
20.	-- Unknown_Sterol_type_____	28.86	SVOA	240 J N

FORM-1-B

00334

*MB*  
12/22/97

~~00334~~

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AO

LIMS ID: 97-17627

Matrix: Sediment

Data Release Authorized: *[Signature]*

Reported: 11/13/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample No: 9738 4956

WR-SD- SD08Z - 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.5%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	300
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	21
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00335

ANALYTICAL  
RESOURCES  
INCORPORATED

*JMB*  
1/22/98

003105



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AO

LIMS ID: 97-17627

Matrix: Sediment

Data Release Authorized: *WR*

Reported: 11/13/97

Sample No: 9738 4956

WR-SD- SD082-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.5%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	41
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	56
129-00-0	Pyrene	41
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U <i>J</i>
56-55-3	Benzo (a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	98 <i>p u</i>
218-01-9	Chrysene	26
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo (b)fluoranthene	23
207-08-9	Benzo (k)fluoranthene	19 U
50-32-8	Benzo (a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo (g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.3%	d5-Phenol	39.4%
2-Fluorobiphenyl	41.3%	2-Fluorophenol	42.4%
d14-p-Terphenyl	41.6%	2,4,6-Tribromophenol	51.2%
d4-1,2-Dichlorobenzene	34.0%	d4-2-Chlorophenol	38.2%

FORM-1

00336

003106

*JMB*  
*1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4956

WR-SD-SD082-0000

Lab Sample ID: T914AO  
LIMS ID: 97-17627  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *MB*  
Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	7.08	SVOA	330 J N
2. --	Unknown_Organic_Acid_____	12.30	SVOA	350 J N
3. --	Unknown_Cycloalkane_____	14.63	SVOA	100 J N
4. --	Unknown_Organic_Acid_____	17.41	SVOA	90 J N
5. --	Unknown_Organic_Acid_____	18.07	SVOA	96 J N
6. --	Unknown_Alcohol_____	18.44	SVOA	100 J N
7. --	Unknown_Organic_Acid_____	19.16	SVOA	91 J N
8. --	Unknown_Aromatic_____	20.42	SVOA	67 J N
9. --	Unknown_Aromatic_____	21.35	SVOA	360 J N
10. --	Unknown_Aromatic_____	24.11	SVOA	270 J N
11. --	Unknown_Sterol_type_____	26.91	SVOA	140 J N
12. --	Unknown_Sterol_type_____	26.97	SVOA	160 J N
13. --	Unknown_Sterol_type_____	27.63	SVOA	120 J N
14. --	Unknown_Sterol_type_____	28.01	SVOA	750 J N
15. --	Unknown_Aromatic_____	28.15	SVOA	300 J N
16. --	Unknown_____	28.32	SVOA	440 J N
17. --	Unknown_Aldehyde_____	28.43	SVOA	620 J N
18. --	Unknown_____	28.58	SVOA	320 J N
19. --	Unknown_____	28.75	SVOA	120 J N
20. --	Unknown_Sterol_type_____	28.85	SVOA	240 J N

FORM-1-B

00337

*JMB*  
12/22/97

003107



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AP

LIMS ID: 97-17628

Matrix: Sediment

Data Release Authorized: *out*

Reported: 11/13/97

Sample No: 9738 4958

WR-SD- SD089-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.7%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	300
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	23
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

90338

003145

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AP

LIMS ID: 97-17628

Matrix: Sediment

Data Release Authorized: *AWP*

Reported: 11/13/97

Sample No: 9738 4958

WR-SD-SD089-0002

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.7%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	26
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	36
129-00-0	Pyrene	32
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	110 S
218-01-9	Chrysene	21
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	19 U
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	38.2%	d5-Phenol	39.0%
2-Fluorobiphenyl	39.7%	2-Fluorophenol	41.4%
d14-p-Terphenyl	42.0%	2,4,6-Tribromophenol	52.5%
d4-1,2-Dichlorobenzene	30.9%	d4-2-Chlorophenol	37.7%

FORM-1

00339

003146

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4958

WR-SD- SD089- 0000

Lab Sample ID: T914AP

LIMS ID: 97-17628

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *BNB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	7.06	SVOA	110 J N
2. --	Unknown_Organic_Acid_____	7.33	SVOA	86 J N
3. --	Unknown_Organic_Acid_____	12.30	SVOA	340 J N
4. --	Unknown_Organic_Acid_____	18.07	SVOA	99 J N
5. --	Unknown_Alcohol_____	18.44	SVOA	97 J N
6. --	Unknown_Aromatic_____	21.35	SVOA	300 J N
7. --	Unknown_Aromatic_____	24.11	SVOA	270 J N
8. --	Unknown_Aldehyde_____	25.06	SVOA	300 J N
9. --	Unknown_Sterol_type_____	26.69	SVOA	260 J N
10. --	Unknown_Sterol_type_____	26.91	SVOA	400 J N
11. --	Unknown_Sterol_type_____	26.97	SVOA	240 J N
12. --	Unknown_Sterol_type_____	27.20	SVOA	210 J N
13. --	Unknown_Sterol_type_____	27.64	SVOA	230 J N
14. --	Unknown_Sterol_type_____	28.01	SVOA	1,200 J N
15. --	Unknown_Aromatic_____	28.15	SVOA	450 J N
16. --	Unknown_____	28.33	SVOA	680 J N
17. --	Unknown_____	28.43	SVOA	940 J N
18. --	Unknown_____	28.58	SVOA	490 J N
19. --	Unknown_____	28.75	SVOA	170 J N
20. --	Unknown_Sterol_type_____	28.85	SVOA	410 J N

FORM-1-B

*JMB*  
12/22/97

00340

*00340*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AQ

LIMS ID: 97-17629

Matrix: Sediment

Data Release Authorized: GRB

Reported: 11/13/97

Sample No: 9738 4960

WR-SD- SD891-0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.6%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	320
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00341

003184

JMB  
1/22/94



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AQ

LIMS ID: 97-17629

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/13/97

Sample No: 9738 4960

WR-SD- SD091-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.6%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	19 U
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	27
129-00-0	Pyrene	30
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U <i>J</i>
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	100 p u
218-01-9	Chrysene	20
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	19 U
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.1%	d5-Phenol	46.1%
2-Fluorobiphenyl	38.5%	2-Fluorophenol	45.8%
d14-p-Terphenyl	49.5%	2,4,6-Tribromophenol	54.3%
d4-1,2-Dichlorobenzene	17.7%	d4-2-Chlorophenol	42.6%

FORM-1

00342

003185

JMB  
1/22/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4960

WR-SD- SD091-0000

Lab Sample ID: T914AQ

LIMS ID: 97-17629

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *ENB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	12.30	SVOA	300 J N
2. --	Unknown_Cycloalkane_____	14.63	SVOA	600 J N
3. --	Unknown_____	16.76	SVOA	200 J N
4. --	Unknown_Organic_Acid_____	17.41	SVOA	110 J N
5. --	Unknown_Organic_Acid_____	17.98	SVOA	100 J N
6. --	Unknown_____	19.52	SVOA	610 J N
7. --	Unknown_Aromatic_____	21.36	SVOA	330 J N
8. --	Unknown_Aromatic_____	24.10	SVOA	260 J N
9. --	Unknown_Aldehyde_____	25.06	SVOA	430 J N
10. --	Unknown_____	25.42	SVOA	220 J N
11. --	Unknown_Sterol_type_____	26.92	SVOA	330 J N
12. --	Unknown_Sterol_type_____	26.97	SVOA	240 J N
13. --	Unknown_Sterol_type_____	27.63	SVOA	220 J N
14. --	Unknown_Sterol_type_____	28.01	SVOA	1,100 J N
15. --	Unknown_Aromatic_____	28.15	SVOA	450 J N
16. --	Unknown_____	28.32	SVOA	680 J N
17. --	Unknown_____	28.43	SVOA	860 J N
18. --	Unknown_Sterol_type_____	28.59	SVOA	440 J N
19. --	Unknown_____	28.75	SVOA	180 J N
20. --	Unknown_Sterol_type_____	28.86	SVOA	390 J N

FORM-1-B

00343

*JMB*  
*12/22/97*

~~100-1871~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AR

LIMS ID: 97-17630

Matrix: Sediment

Data Release Authorized: *AM*

Reported: 11/13/97

Sample No: 9738 4961

WR-SD- SD096-00000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 11/07/97

Date analyzed: 11/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	29
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 <i>UR</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

0034

*JMB*  
*11/22/94*  
~~003221~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AR  
LIMS ID: 97-17630

Matrix: Sediment

Data Release Authorized: *OK*  
Reported: 11/13/97

Sample No: 9738 4961

WR-SD-SD096-0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Date extracted: 11/07/97

Date analyzed: 11/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 40.0%  
pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	110
86-74-8	Carbazole	20 U
120-12-7	Anthracene	24
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	550
129-00-0	Pyrene	770
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	240
117-81-7	bis(2-Ethylhexyl)phthalate	86 <i>J</i>
218-01-9	Chrysene	280
117-84-0	Di-n-Octyl phthalate	20 U <i>J</i>
205-99-2	Benzo(b)fluoranthene	240
207-08-9	Benzo(k)fluoranthene	260
50-32-8	Benzo(a)pyrene	400
193-39-5	Indeno(1,2,3-cd)pyrene	300
53-70-3	Dibenz(a,h)anthracene	72
191-24-2	Benzo(g,h,i)perylene	380

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	42.6%	d5-Phenol	47.9%
2-Fluorobiphenyl	57.1%	2-Fluorophenol	41.1%
d14-p-Terphenyl	72.3%	2,4,6-Tribromophenol	87.0%
d4-1,2-Dichlorobenzene	33.2%	d4-2-Chlorophenol	40.6%

FORM-1

00345

*JMB*  
1/22/98

~~003222~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4961

WR-SD-SD 096-0000

Lab Sample ID: T914AR

LIMS ID: 97-17630

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *ON*

Reported: 11/13/97

Date Analyzed: 11/10/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.42	SVOA	460 J N
2. --	Unknown_Organic_Acid_____	11.48	SVOA	780 J N
3. --	Unknown_Organic_Acid_____	18.21	SVOA	240 J N
4. --	Unknown_Aromatic_____	18.34	SVOA	310 J N
5. --	Unknown_____	19.07	SVOA	440 J N
6. --	Unknown_____	19.71	SVOA	420 J N
7. --	Unknown_Aromatic_____	20.63	SVOA	180 J N
8. --	Unknown_Aromatic_____	23.40	SVOA	160 J N
9. --	Unknown_C20.H12_PNA_____	24.90	SVOA	260 J N
10. --	Unknown_Aldehyde_____	25.42	SVOA	200 J N
11. --	Unknown_Sterol_type_____	26.23	SVOA	190 J N
12. --	Unknown_____	26.96	SVOA	320 J N
13. --	Unknown_____	27.05	SVOA	190 J N
14. --	Unknown_Sterol_type_____	27.47	SVOA	560 J N
15. --	Unknown_____	27.67	SVOA	300 J N
16. --	Unknown_____	27.85	SVOA	220 J N
17. --	Unknown_____	28.00	SVOA	490 J N
18. --	Unknown_____	28.21	SVOA	220 J N
19. --	Unknown_____	28.38	SVOA	500 J N
20. --	Unknown_Sterol_type_____	28.49	SVOA	150 J N

FORM-1-B

JMB  
2/22/97

00346

700-225



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AS

LIMS ID: 97-17631

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 11/13/97

Sample No: 9738 4963

WR-SD-SD095-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.3%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00347

*JMB*  
1/22/98  
~~003268~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AS

LIMS ID: 97-17631

Matrix: Sediment

Data Release Authorized: *ONP*

Reported: 11/13/97

Sample No: 9738 4963

WR-SD- SD095-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.3%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	20 U
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	20 U <i>AM</i>
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	28
129-00-0	Pyrene	28
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U <i>J</i>
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	98 <i>AM</i> U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	43.0%	d5-Phenol	44.9%
2-Fluorobiphenyl	44.9%	2-Fluorophenol	47.5%
d14-p-Terphenyl	54.8%	2,4,6-Tribromophenol	56.2%
d4-1,2-Dichlorobenzene	37.6%	d4-2-Chlorophenol	43.3%

FORM-1

00348

003269

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4963

WR-SD- SD095-0000

Lab Sample ID: T914AS *RNP*  
LIMS ID: 97-17631  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized:  
Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	7.08	SVOA	340 J N
2. --	Unknown_Organic_Acid_____	12.32	SVOA	440 J N
3. --	Unknown_____	18.09	SVOA	160 J N
4. --	Unknown_Alcohol_____	18.44	SVOA	130 J N
5. --	Unknown_____	19.06	SVOA	160 J N
6. --	Unknown_____	19.51	SVOA	110 J N
7. --	Unknown_Aromatic_____	21.35	SVOA	290 J N
8. --	Unknown_Aromatic_____	24.11	SVOA	460 J N
9. --	Unknown_Aldehyde_____	25.06	SVOA	420 J N
10. --	Unknown_Sterol_type_____	26.69	SVOA	350 J N
11. --	Unknown_Sterol_type_____	26.91	SVOA	430 J N
12. --	Unknown_Sterol_type_____	26.97	SVOA	250 J N
13. --	Unknown_Sterol_type_____	27.20	SVOA	260 J N
14. --	Unknown_Sterol_type_____	27.64	SVOA	250 J N
15. --	Unknown_Sterol_type_____	28.01	SVOA	1,200 J N
16. --	Unknown_____	28.15	SVOA	490 J N
17. --	Unknown_____	28.34	SVOA	790 J N
18. --	Unknown_____	28.43	SVOA	1,000 J N
19. --	Unknown_Aldehyde_____	28.58	SVOA	510 J N
20. --	Unknown_Sterol_type_____	28.86	SVOA	450 J N

FORM-1-B

00349

*JMB*  
12/22/97

~~003277~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AT

LIMS ID: 97-17632

Matrix: Sediment

Data Release Authorized: *ONR*

Reported: 11/13/97

Sample No: 9738 4964

WR- SD - SD 094-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.6%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	390
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00350

*JMB*  
*1/22/98*  
~~003316~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AT

LIMS ID: 97-17632

Matrix: Sediment

Data Release Authorized: *anp*

Reported: 11/13/97

Sample No: 9738 4964

WR-SD-SD094-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.6%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U <i>J</i>
85-01-8	Phenanthrene	19 U
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	26
129-00-0	Pyrene	23
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U <i>J</i>
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	120 <i>u</i>
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	19 U
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	37.7%	d5-Phenol	41.2%
2-Fluorobiphenyl	44.8%	2-Fluorophenol	42.1%
d14-p-Terphenyl	55.2%	2,4,6-Tribromophenol	64.9%
d4-1,2-Dichlorobenzene	31.2%	d4-2-Chlorophenol	38.2%

FORM-1

00351

*JMB*  
11/22/98  
003307



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4964

WR-SD- SD094- 0000

Lab Sample ID: T914AT  
LIMS ID: 97-17632  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *OK*  
Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	7.08	SVOA	450 J N
2. --	Unknown_Organic_Acid_____	12.34	SVOA	560 J N
3. --	Unknown_Organic_Acid_____	18.08	SVOA	160 J N
4. --	Unknown_____	19.05	SVOA	190 J N
5. --	Unknown_____	19.51	SVOA	200 J N
6. --	Unknown_Aromatic_____	21.35	SVOA	220 J N
7. --	Unknown_Aromatic_____	24.10	SVOA	200 J N
8. --	Unknown_Aldehyde_____	25.06	SVOA	490 J N
9. --	Unknown_Aromatic_____	25.42	SVOA	240 J N
10. --	Unknown_Sterol_type_____	26.69	SVOA	440 J N
11. --	Unknown_Sterol_type_____	26.91	SVOA	590 J N
12. --	Unknown_Sterol_type_____	27.20	SVOA	270 J N
13. --	Unknown_Sterol_type_____	27.63	SVOA	300 J N
14. --	Unknown_Sterol_type_____	28.01	SVOA	1,300 J N
15. --	Unknown_____	28.15	SVOA	600 J N
16. --	Unknown_____	28.32	SVOA	830 J N
17. --	Unknown_Aromatic_____	28.43	SVOA	1,100 J N
18. --	Unknown_Aldehyde_____	28.58	SVOA	470 J N
19. --	Unknown_Aromatic_____	28.75	SVOA	230 J N
20. --	Unknown_Sterol_type_____	28.85	SVOA	530 J N

FORM-1-B

0035?

*JMB*  
12/22/97

~~003308~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AU

LIMS ID: 97-17633

Matrix: Sediment

Data Release Authorized: *BMB*

Reported: 11/13/97

Sample No: 9738 4965

WR-SD- SD099- 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.7%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	420
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

0035?

*JMB*  
11/22/98  
*06334C*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AU

LIMS ID: 97-17633

Matrix: Sediment

Data Release Authorized: *anp*

Reported: 11/13/97

Sample No: 9738 4965

WR-SD- SDc99-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.7%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	73
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	160
129-00-0	Pyrene	130
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U <i>J</i>
56-55-3	Benzo(a)anthracene	42
117-81-7	bis(2-Ethylhexyl)phthalate	110 <i>fu</i>
218-01-9	Chrysene	78
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	46
207-08-9	Benzo(k)fluoranthene	42
50-32-8	Benzo(a)pyrene	32
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	39.1%	d5-Phenol	41.2%
2-Fluorobiphenyl	43.6%	2-Fluorophenol	41.6%
d14-p-Terphenyl	46.3%	2,4,6-Tribromophenol	52.3%
d4-1,2-Dichlorobenzene	32.5%	d4-2-Chlorophenol	39.0%

FORM-1

00351

*JMB*  
1/22/98  
~~003343~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4965

WR-SD- SD099-0000

Lab Sample ID: T914AU

LIMS ID: 97-17633

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *ewp*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid	6.86	SVOA	230 J N
2. --	Unknown_Organic_Acid	7.11	SVOA	520 J N
3. --	Unknown_Organic_Acid	7.37	SVOA	130 J N
4. --	Unknown_Organic_Acid	12.32	SVOA	480 J N
5. --	Unknown_Organic_Acid	17.41	SVOA	140 J N
6. --	Unknown_Organic_Acid	18.06	SVOA	150 J N
7. --	Unknown_Aldehyde	18.27	SVOA	140 J N
8. --	Unknown_Organic_Acid	19.16	SVOA	180 J N
9. --	Unknown	19.51	SVOA	230 J N
10. --	Unknown_Aromatic	21.35	SVOA	320 J N
11. --	Unknown_Aromatic	24.09	SVOA	190 J N
12. --	Unknown_Sterol_type	26.91	SVOA	220 J N
13. --	Unknown_Sterol_type	26.97	SVOA	190 J N
14. --	Unknown_Sterol_type	27.63	SVOA	170 J N
15. --	Unknown	28.14	SVOA	1,000 J N
16. --	Unknown	28.31	SVOA	620 J N
17. --	Unknown_Aldehyde	28.42	SVOA	800 J N
18. --	Unknown_Sterol_type	28.58	SVOA	370 J N
19. --	Unknown	28.73	SVOA	170 J N
20. --	Unknown_Sterol_type	28.84	SVOA	290 J N

FORM-1-B

JMB  
12/22/97

00355

403344



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AV

LIMS ID: 97-17634

Matrix: Sediment

Data Release Authorized: *CRP*

Reported: 11/13/97

Sample No: 9738 4966

WR-SD-SD098-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.8%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U <i>J</i>
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	380
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U <i>J</i>
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00356

063386 *JME*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AV

LIMS ID: 97-17634

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/13/97

Sample No: 9738 4966

WR-SD-SD098-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.8%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	21
86-74-8	Carbazole	19 U <i>J</i>
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	35
129-00-0	Pyrene	30
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U <i>J</i>
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	130 <i>μ</i> U
218-01-9	Chrysene	23
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	20
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.4%	d5-Phenol	55.5%
2-Fluorobiphenyl	56.3%	2-Fluorophenol	56.4%
d14-p-Terphenyl	58.0%	2,4,6-Tribromophenol	71.6%
d4-1,2-Dichlorobenzene	36.9%	d4-2-Chlorophenol	52.4%

FORM-1

00357

*JMB*  
11/22/98  
~~003387~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4966

WR-SD- SD098- 0000

Lab Sample ID: T914AV

LIMS ID: 97-17634

Matrix: Sediment

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Data Release Authorized: *JMB*

Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid_____	12.31	SVOA	400 J N
2.	-- Unknown_Organic_Acid_____	17.42	SVOA	110 J N
3.	-- Unknown_____	18.08	SVOA	170 J N
4.	-- Unknown_Organic_Acid_____	19.04	SVOA	190 J N
5.	-- Unknown_Organic_Acid_____	19.19	SVOA	170 J N
6.	-- Unknown_____	19.50	SVOA	150 J N
7.	-- Unknown_Aromatic_____	21.35	SVOA	310 J N
8.	-- Unknown_Aromatic_____	24.11	SVOA	260 J N
9.	-- Unknown_Sterol_type_____	26.70	SVOA	330 J N
10.	-- Unknown_Sterol_type_____	26.93	SVOA	720 J N
11.	-- Unknown_Sterol_type_____	27.20	SVOA	300 J N
12.	-- Unknown_Sterol_type_____	27.64	SVOA	390 J N
13.	-- Unknown_____	27.76	SVOA	230 J N
14.	-- Unknown_Sterol_type_____	28.02	SVOA	1,800 J N
15.	-- Unknown_____	28.16	SVOA	570 J N
16.	-- Unknown_____	28.34	SVOA	1,000 J N
17.	-- Unknown_Sterol_type_____	28.44	SVOA	1,400 J N
18.	-- Unknown_Sterol_type_____	28.59	SVOA	610 J N
19.	-- Unknown_Aromatic_____	28.75	SVOA	270 J N
20.	-- Unknown_Sterol_type_____	28.87	SVOA	610 J N

FORM-1-B

00358

*JMB*  
12/22/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T914AW

LIMS ID: 97-17635

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/13/97

Sample No: 9738 4967

WR-SD- SDic3 - 0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 49.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U <i>J</i>
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	680
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U <i>J</i>
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U <i>J</i>
83-32-9	Acenaphthene	23
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	24
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00359

*JMB*  
1/22/98  
003126



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T914AW

LIMS ID: 97-17635

Matrix: Sediment

Data Release Authorized: *AWB*

Reported: 11/13/97

Sample No: 9738 4967

WR-SD-SD103-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/31/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	35
100-01-6	4-Nitroaniline	99 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U J
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U J
85-01-8	Phenanthrene	310
86-74-8	Carbazole	54 J
120-12-7	Anthracene	45
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	590
129-00-0	Pyrene	440
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U J
56-55-3	Benzo(a)anthracene	120
117-81-7	bis(2-Ethylhexyl)phthalate	180 J U
218-01-9	Chrysene	210
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	100
50-32-8	Benzo(a)pyrene	82
193-39-5	Indeno(1,2,3-cd)pyrene	42
53-70-3	Dibenz(a,h)anthracene	21
191-24-2	Benzo(g,h,i)perylene	43

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.7%	d5-Phenol	54.6%
2-Fluorobiphenyl	54.6%	2-Fluorophenol	57.8%
d14-p-Terphenyl	61.0%	2,4,6-Tribromophenol	64.0%
d4-1,2-Dichlorobenzene	45.6%	d4-2-Chlorophenol	53.2%

FORM-1

00360

JMB  
11/22/98  
003427



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4967

WR-SD- SD103- 0000

Lab Sample ID: T914AW  
LIMS ID: 97-17635  
Matrix: Sediment

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Data Release Authorized: *BKB*  
Reported: 11/13/97

Date Analyzed: 10/31/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	7.30	SVOA	670 J N
2. --	Unknown_Organic_Acid_____	7.53	SVOA	190 J N
3. --	Unknown_Organic_Acid_____	12.38	SVOA	820 J N
4. --	Unknown_Organic_Acid_____	17.08	SVOA	70 J N
5. --	Unknown_Organic_Acid_____	17.44	SVOA	160 J N
6. --	Unknown_____	19.05	SVOA	220 J N
7. --	Unknown_Organic_Acid_____	19.21	SVOA	130 J N
8. --	Unknown_____	19.51	SVOA	100 J N
9. --	Unknown_____	20.01	SVOA	84 J N
10. --	Unknown_Aromatic_____	21.36	SVOA	600 J N
11. --	Unknown_Aromatic_____	24.11	SVOA	300 J N
12. --	Unknown_Sterol_type_____	26.93	SVOA	610 J N
13. --	Unknown_____	27.20	SVOA	340 J N
14. --	Unknown_Sterol_type_____	27.64	SVOA	370 J N
15. --	Unknown_____	28.15	SVOA	360 J N
16. --	Unknown_____	28.33	SVOA	890 J N
17. --	Unknown_____	28.43	SVOA	1,200 J N
18. --	Unknown_____	28.59	SVOA	600 J N
19. --	Unknown_Aromatic_____	28.75	SVOA	270 J N
20. --	Unknown_Sterol_type_____	28.85	SVOA	550 J N

FORM-1-B

00361

*JMB*  
12/22/97

*100-103*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T923A

LIMS ID: 97-17682

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/16/97

Sample No: 97384909

WR-SD- SDc4S- 0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 38.0%

pH: 7.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U J
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U J
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U J
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	50
106-47-8	4-Chloroaniline	57 U J
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	29
77-47-4	Hexachlorocyclopentadiene	95 U J
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U J
83-32-9	Acenaphthene	61
51-28-5	2,4-Dinitrophenol	190 U J
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	31
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

003662

JMB  
12/22/98  
003668



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T923A

LIMS ID: 97-17682

Matrix: Sediment

Data Release Authorized: MWV

Reported: 10/16/97

Sample No: 97384909

WR-SD- SD045-0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 38.0%  
pH: 7.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	51
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U J
85-01-8	Phenanthrene	260
86-74-8	Carbazole	21
120-12-7	Anthracene	49
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	250
129-00-0	Pyrene	250
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U J
56-55-3	Benzo(a)anthracene	82
117-81-7	bis(2-Ethylhexyl)phthalate	170
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U J
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	87
50-32-8	Benzo(a)pyrene	56
193-39-5	Indeno(1,2,3-cd)pyrene	41
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	46.7%	d5-Phenol	47.3%
2-Fluorobiphenyl	52.0%	2-Fluorophenol	50.0%
d14-p-Terphenyl	73.5%	2,4,6-Tribromophenol	69.0%
d4-1,2-Dichlorobenzene	44.0%	d4-2-Chlorophenol	49.5%

FORM-1

00363

JMB  
1/22/98  
003669



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97384909

WR-SD- SD045- 0000

Lab Sample ID: T923A  
LIMS ID: 97-17682  
Matrix: Sediment

QC Report No: T923-Roy F. Weston  
Project: PSR

Date Sampled: 09/19/97  
Date Received: 09/24/97

Data Release Authorized: v/v  
Reported: 10/16/97

Date Analyzed: 10/10/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Cycloalkane	13.87	SVOA	120 J N
2.	-- Unknown_Organic_Acid	18.37	SVOA	190 J N
3.	-- Unknown	18.81	SVOA	120 J N
4.	-- Unknown	19.62	SVOA	100 J N
5.	-- Unknown_Aromatic	19.71	SVOA	380 J N
6.	-- Unknown_Aromatic	20.65	SVOA	780 J N
7.	-- Unknown_Aldehyde	23.10	SVOA	750 J N
8.	-- Unknown_Aldehyde	24.31	SVOA	1,700 J N
9.	-- Unknown_Cycloalkane	24.68	SVOA	350 J N
10.	-- Unknown_Aldehyde	25.44	SVOA	1,000 J N
11.	-- Unknown	25.97	SVOA	300 J N
12.	-- Unknown_Sterol_type	26.24	SVOA	770 J N
13.	-- Unknown_Sterol_type	27.50	SVOA	1,600 J N
14.	-- Unknown_Aromatic	27.70	SVOA	1,200 J N
15.	-- Unknown	27.75	SVOA	720 J N
16.	-- Unknown	27.88	SVOA	1,300 J N
17.	-- Unknown	28.03	SVOA	1,500 J N
18.	-- Unknown	28.23	SVOA	690 J N
19.	-- Unknown	28.40	SVOA	360 J N
20.	-- Unknown_Sterol_type	28.52	SVOA	930 J N

FORM-1-B

00364

JMB  
12/22/97

003670



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T923B

LIMS ID: 97-17683

Matrix: Sediment

Data Release Authorized: *MMW*

Reported: 10/16/97

Sample No: 97384910

WR-SD- SD047- 0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.4%

pH: 7.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	25
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	28
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	30
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00365

JMB  
1/22/98  
AA3717



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T923B

LIMS ID: 97-17683

Matrix: Sediment

Data Release Authorized: MM

Reported: 10/16/97

Sample No: 97384910

WR-SD-SD047-0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/10/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.4%

pH: 7.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	25
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U J
85-01-8	Phenanthrene	140
86-74-8	Carbazole	19 U
120-12-7	Anthracene	39
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	200
129-00-0	Pyrene	260
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U J
56-55-3	Benzo(a)anthracene	79
117-81-7	bis(2-Ethylhexyl)phthalate	250
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	19 U J
205-99-2	Benzo(b)fluoranthene	96
207-08-9	Benzo(k)fluoranthene	94
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	62
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.0%	d5-Phenol	53.5%
2-Fluorobiphenyl	57.1%	2-Fluorophenol	52.9%
d14-p-Terphenyl	81.3%	2,4,6-Tribromophenol	73.8%
d4-1,2-Dichlorobenzene	43.7%	d4-2-Chlorophenol	52.6%

FORM-1

00366

JMB  
1/22/98  
003718



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97384910

WR-SD- SD047-0000

Lab Sample ID: T923B

QC Report No: T923-Roy F. Weston

LIMS ID: 97-17683

Project: PSR

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized:

Reported: 10/16/97

Date Analyzed: 10/10/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown	14.47	SVOA	140 J N
2.	-- Unknown_Alcohol	17.67	SVOA	130 J N
3.	-- Unknown_Aromatic	18.35	SVOA	100 J N
4.	-- Unknown	18.81	SVOA	170 J N
5.	-- Unknown	19.25	SVOA	160 J N
6.	-- Unknown_Sterol_type	19.62	SVOA	100 J N
7.	-- Unknown_Aromatic	19.71	SVOA	440 J N
8.	-- Unknown_Aromatic	20.65	SVOA	560 J N
9.	-- Unknown	23.55	SVOA	710 J N
10.	-- Unknown_Aldehyde	24.31	SVOA	1,400 J N
11.	-- Unknown	24.70	SVOA	480 J N
12.	-- Unknown_Aldehyde	25.44	SVOA	810 J N
13.	-- Unknown_Sterol_type	25.97	SVOA	250 J N
14.	-- Unknown_Sterol_type	26.24	SVOA	570 J N
15.	-- Unknown_Sterol_type	27.50	SVOA	1,100 J N
16.	-- Unknown_Aromatic	27.69	SVOA	600 J N
17.	-- Unknown	27.88	SVOA	1,000 J N
18.	-- Unknown_Sterol_type	28.02	SVOA	1,200 J N
19.	-- Unknown_Sterol_type	28.23	SVOA	590 J N
20.	-- Unknown_Sterol_type	28.51	SVOA	720 J N

FORM-1-B

00367

JMB  
12/22/97  
003719



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T923C

LIMS ID: 97-17684

Matrix: Sediment

Data Release Authorized: MW

Reported: 10/16/97

Sample No: 97384911

WR-SD-SD046-0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/15/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 39.9%

pH: 7.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	33
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	40
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00368

JMB  
12/22/97

-00376-1



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2

Lab Sample ID: T923C  
LIMS ID: 97-17684  
Matrix: Sediment  
Data Release Authorized: *MW*  
Reported: 10/16/97

Sample No: 97384911

WR-SD-SD046-0000

QC Report No: T923-Roy F. Weston  
Project: PSR

Date Sampled: 09/19/97  
Date Received: 09/24/97

Date extracted: 10/02/97  
Date analyzed: 10/15/97  
Instrument: nt1  
GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 39.9%  
pH: 7.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	31
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	150
86-74-8	Carbazole	20 U
120-12-7	Anthracene	34
84-74-2	Di-n-Butylphthalate	20 U <i>J</i>
206-44-0	Fluoranthene	210
129-00-0	Pyrene	190
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	86
117-81-7	bis(2-Ethylhexyl)phthalate	170
218-01-9	Chrysene	120
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	90
50-32-8	Benzo(a)pyrene	83
193-39-5	Indeno(1,2,3-cd)pyrene	57
53-70-3	Dibenz(a,h)anthracene	21
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.8%	d5-Phenol	50.7%
2-Fluorobiphenyl	54.0%	2-Fluorophenol	50.6%
d14-p-Terphenyl	57.3%	2,4,6-Tribromophenol	64.8%
d4-1,2-Dichlorobenzene	43.7%	d4-2-Chlorophenol	48.6%

FORM-1

00369

*JMB*  
12/22/97

003765



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97384911

WR-SD-SD046-0000

Lab Sample ID: T923C

QC Report No: T923-Roy F. Weston

LIMS ID: 97-17684

Project: PSR

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: *mwm*

Reported: 10/16/97

Date Analyzed: 10/15/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Cycloalkane	13.64	SVOA	460 J N
2. --	Unknown_Organic_Acid	18.16	SVOA	190 J N
3. --	Unknown_Aromatic	20.42	SVOA	290 J N
4. --	Unknown_Aromatic	23.19	SVOA	200 J N
5. --	Unknown_Aldehyde	24.11	SVOA	770 J N
6. --	Unknown_Cycloalkane	24.48	SVOA	360 J N
7. --	Unknown_Aldehyde	25.24	SVOA	400 J N
8. --	Unknown	25.36	SVOA	190 J N
9. --	Unknown	25.57	SVOA	380 J N
10. --	Unknown	25.78	SVOA	400 J N
11. --	Unknown_Sterol_type	26.02	SVOA	380 J N
12. --	Unknown	26.31	SVOA	250 J N
13. --	Unknown_Sterol_type	26.80	SVOA	270 J N
14. --	Unknown_Sterol_type	27.22	SVOA	800 J N
15. --	Unknown	27.40	SVOA	440 J N
16. --	Unknown_Aromatic	27.59	SVOA	520 J N
17. --	Unknown_Sterol_type	27.73	SVOA	690 J N
18. --	Unknown_Sterol_type	27.90	SVOA	470 J N
19. --	Unknown	28.08	SVOA	190 J N
20. --	Unknown_Sterol_type	28.20	SVOA	500 J N

FORM-1-B

00370

JMB  
12/22/97  
~~003766~~



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T923D

LIMS ID: 97-17685

Matrix: Sediment

Data Release Authorized: *W.W.*

Reported: 10/16/97

Sample No: 97384912

WR-SD-SDOSD-0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/15/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.2%

pH: 7.6

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	21
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	86
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	32
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	70
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	26
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00371

JMB  
12/22/97

003811



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T923D

LIMS ID: 97-17685

Matrix: Sediment

Data Release Authorized: ````

Reported: 10/16/97

Sample No: 97384912

WR-SD-SDOSD-0000

QC Report No: T923-Roy F. Weston

Project: PSR

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/02/97

Date analyzed: 10/15/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 37.2%

pH: 7.6

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	50
100-01-6	4-Nitroaniline	100 U J
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U J
85-01-8	Phenanthrene	290
86-74-8	Carbazole	30
120-12-7	Anthracene	79
84-74-2	Di-n-Butylphthalate	20 U J
206-44-0	Fluoranthene	430
129-00-0	Pyrene	380
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	190
117-81-7	bis(2-Ethylhexyl)phthalate	150
218-01-9	Chrysene	260
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	190
207-08-9	Benzo(k)fluoranthene	220
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	89
53-70-3	Dibenz(a,h)anthracene	42
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.8%	d5-Phenol	57.1%
2-Fluorobiphenyl	59.6%	2-Fluorophenol	55.4%
d14-p-Terphenyl	64.7%	2,4,6-Tribromophenol	69.2%
d4-1,2-Dichlorobenzene	42.5%	d4-2-Chlorophenol	54.1%

FORM-1

00372

JMB  
12/22/97  
00381



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97384912

WR-SD- SDOSD-0000

Lab Sample ID: T923D

QC Report No: T923-Roy F. Weston

LIMS ID: 97-17685

Project: PSR

Matrix: Sediment

Date Sampled: 09/19/97

Date Received: 09/24/97

Data Release Authorized: W

Reported: 10/16/97

Date Analyzed: 10/15/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Organic_Acid	18.17	SVOA	290 JN
2.	-- Unknown	18.58	SVOA	240 JN
3.	-- Unknown_Aromatic	19.48	SVOA	250 JN
4.	-- Unknown_Aromatic	20.43	SVOA	400 JN
5.	-- Unknown_Aldehyde	22.89	SVOA	240 JN
6.	-- Unknown_Aromatic	23.19	SVOA	210 JN
7.	-- Unknown_Aldehyde	24.11	SVOA	1,100 JN
8.	-- Unknown_Cycloalkane	24.48	SVOA	340 JN
9.	-- Unknown_Aldehyde	25.24	SVOA	570 JN
10.	-- Unknown_Alcohol	25.58	SVOA	370 JN
11.	-- Unknown_Sterol_type	26.02	SVOA	380 JN
12.	-- Unknown_Aldehyde	26.31	SVOA	360 JN
13.	-- Unknown_Sterol_type	26.80	SVOA	280 JN
14.	-- Unknown_Sterol_type	27.23	SVOA	1,000 JN
15.	-- Unknown_Aromatic	27.41	SVOA	600 JN
16.	-- Unknown_Aromatic	27.59	SVOA	620 JN
17.	-- Unknown_Sterol_type	27.73	SVOA	820 JN
18.	-- Unknown	27.91	SVOA	440 JN
19.	-- Unknown	28.09	SVOA	200 JN
20.	-- Unknown_Sterol_type	28.20	SVOA	440 JN

FORM-1-B

00373

JMB  
12/22/97

003813



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4106

WR-SD- SD 049-0000

Lab Sample ID: T914D

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17588

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Rylee*

Date Sampled: 09/19/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Sample Amount: 52.1 g-dry-wt

Date analyzed: 10/20/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 45.6%

Sulfur Cleanup: NO

pH: 6.8

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 U
319-85-7	beta-BHC	0.96 U
319-86-8	delta-BHC	1.5 X U I
58-89-9	gamma-BHC (Lindane)	0.96 U
76-44-8	Heptachlor	0.96 U
309-00-2	Aldrin	0.96 U
1024-57-3	Heptachlor Epoxide	0.96 U
959-98-8	Endosulfan I	0.96 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.9 U
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.6 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.7 J
72-43-5	Methoxychlor	9.6 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.96 U
5103-71-9	alpha Chlordane	0.96 U
8001-35-2	Toxaphene	96 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 59.8%  
Tetrachlorometaxylene 44.8%



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4913

WR-SD- SD048-0000

Lab Sample ID: T914N

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17598

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Alynn*

Date Sampled: 09/19/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: NO

Dilution Factor: 1:1

Percent Moisture: 38.1%

pH: 6.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.94 U
319-85-7	beta-BHC	0.94 U
319-86-8	delta-BHC	0.94 U
58-89-9	gamma-BHC (Lindane)	0.94 U
76-44-8	Heptachlor	0.94 U
309-00-2	Aldrin	0.94 U
1024-57-3	Heptachlor Epoxide	0.94 U
959-98-8	Endosulfan I	0.94 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.9 U
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	3.1
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	7.2
72-43-5	Methoxychlor	9.4 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.94 U
5103-71-9	alpha Chlordane	0.94 U
8001-35-2	Toxaphene	94 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 48.5%  
Tetrachlorometaxylene 38.2%

005230

FORM-1

00375

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T9140  
LIMS ID: 97-17599

Matrix: Sediment

Data Release Authorized: *Aggler*  
Reported: 10/24/97

Sample No: 9738 4915

WR-SD- SD48-1000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/19/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 50.5 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 37.5%  
pH: 6.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U
319-85-7	beta-BHC	0.99 U
319-86-8	delta-BHC	0.99 U
58-89-9	gamma-BHC (Lindane)	0.99 U
76-44-8	Heptachlor	0.99 U
309-00-2	Aldrin	0.99 U
1024-57-3	Heptachlor Epoxide	0.99 U
959-98-8	Endosulfan I	0.99 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.0 U
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	3.0
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	3.2
72-43-5	Methoxychlor	9.9 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.99 U
5103-71-9	alpha Chlordane	0.99 U
8001-35-2	Toxaphene	99 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 47.0%  
Tetrachlorometaxylene 37.8%

FORM-1

005237

00376

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4917

WR-SD- SD055-0000

Lab Sample ID: T914Q

LIMS ID: 97-17601

Matrix: Sediment

Data Release Authorized: *[Signature]*

Reported: 10/24/97

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/19/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 21.5%

pH: 7.0

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	0.98 U
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.0 U
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	2.6
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	3.9
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 50.8%  
Tetrachlorometaxylene 49.0%

FORM-1

005244

00377

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4919

WR-SD- SD057-0000

Lab Sample ID: T914R

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17602

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Roger*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: NO

Dilution Factor: 1:1

Percent Moisture: 42.1%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.95 U
319-85-7	beta-BHC	0.95 U
319-86-8	delta-BHC	0.95 U
58-89-9	gamma-BHC (Lindane)	0.95 U
76-44-8	Heptachlor	0.95 U
309-00-2	Aldrin	0.95 U
1024-57-3	Heptachlor Epoxide	0.95 U
959-98-8	Endosulfan I	0.95 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	2.4
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	4.1
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	11
72-43-5	Methoxychlor	9.5 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.95 U
5103-71-9	alpha Chlordane	0.95 U
8001-35-2	Toxaphene	95 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 57.8%  
Tetrachlorometaxylene 39.8%

FORM-1

005251

00378

JMB  
(12/21/98)

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD



ANALYTICAL  
RESOURCES  
INCORPORATED

Lab Sample ID: T914S  
LIMS ID: 97-17603  
Matrix: Sediment

Sample No: 9738 4921  
QC Report No: T914-Roy F. Weston

Project:

1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized:  
Reported: 10/27/97

*Cathie J. Newson*

Date extracted: 10/02/97  
Date analyzed: 10/11/97

GPC Cleanup: Yes

Florisil Cleanup: No

Acid Cleanup: Yes

Sulfur Cleanup: Yes

Sample Amount: 52.7 g-dry-wt

Conc/Dilution Factor: 1:1

Final Ext Vol: 10 mL

Percent Moisture: 44.5%

pH: 7.4

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	29 <i>XUL</i>
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	45.0%
Tetrachlorometaxylene	43.1%

**Data Qualifiers**

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences.  
The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

*JMB*  
12/22/97

00379

—004914



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T914T  
LIMS ID: 97-17604  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 10/24/97

Sample No: 9738 4922

WR-SD- SD058- 0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006  
Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97  
Date analyzed: 10/20/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: NO

Sample Amount: 50.6 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 27.9%  
pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U
319-85-7	beta-BHC	0.99 U
319-86-8	delta-BHC	1.3 <i>U/I</i>
58-89-9	gamma-BHC (Lindane)	0.99 U
76-44-8	Heptachlor	0.99 U
309-00-2	Aldrin	0.99 U
1024-57-3	Heptachlor Epoxide	0.99 U
959-98-8	Endosulfan I	0.99 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.0 U
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	1.7 J
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	2.4
72-43-5	Methoxychlor	9.9 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.99 U
5103-71-9	alpha Chlordane	0.99 U
8001-35-2	Toxaphene	99 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 63.2%  
Tetrachloromethylene 49.2%

005259

FORM-1

00380

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9738 4924

WR-SD- SD061-0000

Lab Sample ID: T914U

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17605

Project:

Matrix: Sediment

1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Data Release Authorized:

Reported: 10/27/97

Date extracted: 10/02/97

GPC Cleanup: Yes

Date analyzed: 10/11/97

Florisil Cleanup: No

Sample Amount: 52.8 g-dry-wt

Acid Cleanup: Yes

Final Ext Vol: 10 mL

Sulfur Cleanup: Yes

pH: 7.2

Conc/Dilution Factor: 1:1

Percent Moisture: 24.5%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	32 YUI
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 58.0%  
Tetrachlorometaxylene 53.7%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.  
E Indicates a value above the linear range of the detector.  
Dilution Required  
S Indicates no value reported due to saturation of the detector.  
D Indicates the surrogate was diluted out.  
U Indicates compound was analyzed for, but not detected at the given detection limit.  
B Found in associated method blank  
NA Indicates compound was not analyzed.  
NR Indicates no recovery due to interferences.  
NV Indicates no value reportable - see additional analyses.  
Y Indicates a raised reporting limit due to matrix interferences.  
The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

JMB  
12/22/97

00381

004922



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T914W

LIMS ID: 97-17607

Matrix: Sediment

Data Release Authorized: *Alfie*

Reported: 10/24/97

Sample No: 9738 4926

WR-SD-SD 066-0000

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/20/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 38.8%

pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.95 <i>VR</i>
319-85-7	beta-BHC	0.95 <i>VR</i>
319-86-8	delta-BHC	0.95 <i>VR</i>
58-89-9	gamma-BHC (Lindane)	0.95 <i>VR</i>
76-44-8	Heptachlor	0.95 <i>VR</i>
309-00-2	Aldrin	0.95 <i>VR</i>
1024-57-3	Heptachlor Epoxide	0.95 <i>VR</i>
959-98-8	Endosulfan I	1.2 <i>XtER</i>
60-57-1	Dieldrin	1.9 <i>VR</i>
72-55-9	4,4'-DDE	5.0 <i>XtER</i>
72-20-8	Endrin	1.9 <i>VR</i>
33213-65-9	Endosulfan II	1.9 <i>VR</i>
72-54-8	4,4'-DDD	4.8 <i>J</i>
1031-07-8	Endosulfan Sulfate	1.9 <i>VR</i>
50-29-3	4,4'-DDT	2.7 <i>J</i>
72-43-5	Methoxychlor	9.5 <i>VR</i>
53494-70-5	Endrin Ketone	1.9 <i>VR</i>
7421-93-4	Endrin Aldehyde	1.9 <i>VR</i>
57-74-9	gamma Chlordane	1.5 <i>XtER</i>
5103-71-9	alpha Chlordane	0.95 <i>VR</i>
8001-35-2	Toxaphene	95 <i>VR</i>
12674-11-2	Aroclor 1016	19 <i>VR</i>
53469-21-9	Aroclor 1242	19 <i>VR</i>
12672-29-6	Aroclor 1248	19 <i>VR</i>
11097-69-1	Aroclor 1254	54 <i>J</i>
11096-82-5	Aroclor 1260	38 <i>XtER</i>
11104-28-2	Aroclor 1221	38 <i>VR</i>
11141-16-5	Aroclor 1232	19 <i>VR</i>

Pesticide Surrogate Recovery

Decachlorobiphenyl 35.5%  
Tetrachlorometaxylenne 9.5%

005266

FORM-1

00382

JMB  
12/198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4930

WR-SD-SD074-0000

Lab Sample ID: T914AA

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17611

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Alph*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/21/97 @

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 50.0%

pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	1.0 UJ
319-85-7	beta-BHC	1.0 UJ
319-86-8	delta-BHC	1.2 XUI J
58-89-9	gamma-BHC (Lindane)	1.0 UJ
76-44-8	Heptachlor	1.0 UJ
309-00-2	Aldrin	1.0 UJ
1024-57-3	Heptachlor Epoxide	1.0 UJ
959-98-8	Endosulfan I	1.0 UJ
60-57-1	Dieldrin	2.0 UJ
72-55-9	4,4'-DDE	4.7 J
72-20-8	Endrin	2.0 UJ
33213-65-9	Endosulfan II	2.0 UJ
72-54-8	4,4'-DDD	40 E 45 D 7
1031-07-8	Endosulfan Sulfate	2.0 UJ
50-29-3	4,4'-DDT	320 D
72-43-5	Methoxychlor	10 UJ
53494-70-5	Endrin Ketone	2.0 UJ
7421-93-4	Endrin Aldehyde	2.0 UJ
57-74-9	gamma Chlordane	1.0 UJ
5103-71-9	alpha Chlordane	1.0 UJ
8001-35-2	Toxaphene	100 UJ
12674-11-2	Aroclor 1016	20 UJ
53469-21-9	Aroclor 1242	20 UJ
12672-29-6	Aroclor 1248	20 UJ
11097-69-1	Aroclor 1254	20 UJ
11096-82-5	Aroclor 1260	20 UJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 38.8%

Tetrachlorometaxylene 28.2%

FORM-1

00383

005274  
*JMB 1/22/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4930  
DILUTION

Lab Sample ID: T914AADL QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17611 Project: 1001.006  
Matrix: Sediment  
Data Release Authorized: *Roger* Date Sampled: 09/20/97  
Reported: 10/24/97 Date Received: 09/24/97

Date extracted: 10/10/97  
Date analyzed: 10/18/97 *10/21/97*  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: NO

Sample Amount: 50.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:20  
Percent Moisture: 50.0%  
pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	20 U
319-85-7	beta-BHC	20 U
319-86-8	delta-BHC	20 U
58-89-9	gamma-BHC (Lindane)	20 U
76-44-8	Heptachlor	20 U
309-00-2	Aldrin	20 U
1024-57-3	Heptachlor Epoxide	20 U
959-98-8	Endosulfan I	20 U
60-57-1	Dieldrin	40 U
72-55-9	4,4'-DDE	40 U
72-20-8	Endrin	40 U
33213-65-9	Endosulfan II	40 U
72-54-8	4,4'-DDD	45
1031-07-8	Endosulfan Sulfate	40 U
50-29-3	4,4'-DDT	320
72-43-5	Methoxychlor	200 U
53494-70-5	Endrin Ketone	40 U
7421-93-4	Endrin Aldehyde	40 U
57-74-9	gamma Chlordane	20 U
5103-71-9	alpha Chlordane	20 U
8001-35-2	Toxaphene	2,000 U
12674-11-2	Aroclor 1016	400 U
53469-21-9	Aroclor 1242	400 U
12672-29-6	Aroclor 1248	400 U
11097-69-1	Aroclor 1254	400 U
11096-82-5	Aroclor 1260	400 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 80.0%  
Tetrachloromethylene D

FORM-1

00-31

005281

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4941

WR-SD- SD070- 0000

Lab Sample ID: T914AG

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17619

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Natalie*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/21/97 *(10/21/97)*

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 53.1 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.94 U
319-85-7	beta-BHC	0.94 U
319-86-8	delta-BHC	0.94 U
58-89-9	gamma-BHC (Lindane)	0.94 U
76-44-8	Heptachlor	0.94 U
309-00-2	Aldrin	0.94 U
1024-57-3	Heptachlor Epoxide	0.94 U
959-98-8	Endosulfan I	0.94 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	8.1
72-20-8	Endrin	3.4 <i>YUI</i>
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	11
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	27
72-43-5	Methoxychlor	9.4 U
53494-70-5	Endrin Ketone	5.0 <i>YUI</i>
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.94 U
5103-71-9	alpha Chlordane	0.94 U
8001-35-2	Toxaphene	94 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	51
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 63.5%  
Tetrachlorometaxylene 34.0%

005286

FORM-1

00385

JMB  
122/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T914AH

LIMS ID: 97-17620

Matrix: Sediment

Data Release Authorized: *High*

Reported: 10/24/97

Sample No: 9738 4943

WR-SD- SD070- 1000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97 10/21/97 @

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 51.6 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 35.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.97 U
319-85-7	beta-BHC	0.97 U
319-86-8	delta-BHC	0.97 U
58-89-9	gamma-BHC (Lindane)	0.97 U
76-44-8	Heptachlor	0.97 U
309-00-2	Aldrin	0.97 U
1024-57-3	Heptachlor Epoxide	0.97 U
959-98-8	Endosulfan I	0.97 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	6.6
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	14
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	24
72-43-5	Methoxychlor	9.7 U
53494-70-5	Endrin Ketone	2.8 <i>XUIC</i>
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.97 U
5103-71-9	alpha Chlordane	0.97 U
8001-35-2	Toxaphene	97 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	39 <i>XUIC</i>
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 64.8%  
Tetrachlorometaxylene 35.5%

FORM-1

005294

00386

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4944

WR-SD- SD072-0000

Lab Sample ID: T914AI

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17621

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Meglin*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/21/97

Sample Amount: 50.6 g-dry-wt

GPC Cleanup: YES

Final Extract Volume: 10 mL

Florisil: YES

Dilution Factor: 1:1

Sulfur Cleanup: NO

Percent Moisture: 36.9%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U
319-85-7	beta-BHC	0.99 U
319-86-8	delta-BHC	1.6 <del>2</del> uI
58-89-9	gamma-BHC (Lindane)	0.99 U
76-44-8	Heptachlor	0.99 U
309-00-2	Aldrin	0.99 U
1024-57-3	Heptachlor Epoxide	0.99 U
959-98-8	Endosulfan I	0.99 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	5.3
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	22
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	40 <del>2</del> 60 D
72-43-5	Methoxychlor	9.9 U
53494-70-5	Endrin Ketone	2.0 U J
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.99 U
5103-71-9	alpha Chlordane	0.99 U
8001-35-2	Toxaphene	99 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	40 <del>2</del> uI
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 67.5%  
Tetrachlorometaxylylene 43.2%

FORM-1

005302

00387

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4944  
DILUTION

Lab Sample ID: T914AIDL  
LIMS ID: 97-17621

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Matrix: Sediment

Data Release Authorized: *RJH*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/18/97 *10/21/97 C*

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 50.6 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:10  
Percent Moisture: 36.9%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.9 U
319-85-7	beta-BHC	9.9 U
319-86-8	delta-BHC	9.9 U
58-89-9	gamma-BHC (Lindane)	9.9 U
76-44-8	Heptachlor	9.9 U
309-00-2	Aldrin	9.9 U
1024-57-3	Heptachlor Epoxide	9.9 U
959-98-8	Endosulfan I	9.9 U
60-57-1	Dieldrin	20 U
72-55-9	4,4'-DDE	20 U
72-20-8	Endrin	20 U
33213-65-9	Endosulfan II	20 U
72-54-8	4,4'-DDD	32
1031-07-8	Endosulfan Sulfate	20 U
50-29-3	4,4'-DDT	60
72-43-5	Methoxychlor	99 U
53494-70-5	Endrin Ketone	20 U <i>J</i>
7421-93-4	Endrin Aldehyde	20 U
57-74-9	gamma Chlordane	9.9 U
5103-71-9	alpha Chlordane	9.9 U
8001-35-2	Toxaphene	990 U
12674-11-2	Aroclor 1016	200 U
53469-21-9	Aroclor 1242	200 U
12672-29-6	Aroclor 1248	200 U
11097-69-1	Aroclor 1254	200 U
11096-82-5	Aroclor 1260	200 U
11104-28-2	Aroclor 1221	400 U
11141-16-5	Aroclor 1232	200 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 90.0%  
Tetrachlorometaxylene 92.5%

FORM-1

*005310*

00388

*JMB*  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4945

WR-SD- SD075- 0000

Lab Sample ID: T914AJ

QC Report No: T914-Roy F. Weston

LIMS ID: 97-17622

Project: 1001.006

Matrix: Sediment

Data Release Authorized: *Roger*

Date Sampled: 09/20/97

Reported: 10/24/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97 10/21/97 C

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 37.6%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.94 U
319-85-7	beta-BHC	0.94 U
319-86-8	delta-BHC	0.94 U
58-89-9	gamma-BHC (Lindane)	0.94 U
76-44-8	Heptachlor	0.94 U
309-00-2	Aldrin	1.3 X UI
1024-57-3	Heptachlor Epoxide	2.3 X UI
959-98-8	Endosulfan I	0.94 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	13
72-20-8	Endrin	2.9 X UI
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	-48 E 81 D
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	40 E 76 D
72-43-5	Methoxychlor	9.4 U
53494-70-5	Endrin Ketone	4.0 X UI J
7421-93-4	Endrin Aldehyde	2.0 X UI
57-74-9	gamma Chlordane	2.4 X UI
5103-71-9	alpha Chlordane	0.94 U
8001-35-2	Toxaphene	94 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 86.5%

Tetrachloromethylene 46.0%

FORM-1

005317

00389

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4945  
DILUTION

Lab Sample ID: T914AJDL  
LIMS ID: 97-17622

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Matrix: Sediment

Data Release Authorized:

Reported: 10/24/97

Date Sampled: 09/20/97  
Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/18/97 10/21/97 (C)

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: NO

Sample Amount: 53.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:10  
Percent Moisture: 37.6%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.4 U
319-85-7	beta-BHC	9.4 U
319-86-8	delta-BHC	9.4 U
58-89-9	gamma-BHC (Lindane)	9.4 U
76-44-8	Heptachlor	9.4 U
309-00-2	Aldrin	9.4 U
1024-57-3	Heptachlor Epoxide	9.4 U
959-98-8	Endosulfan I	9.4 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	23
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	81
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	76
72-43-5	Methoxychlor	94 U
53494-70-5	Endrin Ketone	19 U
7421-93-4	Endrin Aldehyde	19 U
57-74-9	gamma Chlordane	9.4 U
5103-71-9	alpha Chlordane	9.4 U
8001-35-2	Toxaphene	940 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 105%  
Tetrachloromethylene D

005328

JMB  
122/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4947

WR-SD-SD077-0000

Lab Sample ID: T914AK

LIMS ID: 97-17623

Matrix: Sediment

Data Release Authorized:

Reported: 10/24/97

QC Report No: T914-Roy F. Weston

Project: 1001.006

Date Sampled: 09/21/97

Date Received: 09/24/97

Date extracted: 10/10/97

Date analyzed: 10/20/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 52.9 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:20

Percent Moisture: 38.1%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	19 U
319-85-7	beta-BHC	19 U
319-86-8	delta-BHC	19 U
58-89-9	gamma-BHC (Lindane)	19 U
76-44-8	Heptachlor	19 U
309-00-2	Aldrin	19 U
1024-57-3	Heptachlor Epoxide	19 U
959-98-8	Endosulfan I	19 U
60-57-1	Dieldrin	38 U
72-55-9	4,4'-DDE	38 U
72-20-8	Endrin	38 U
33213-65-9	Endosulfan II	38 U
72-54-8	4,4'-DDD	100
1031-07-8	Endosulfan Sulfate	38 U
50-29-3	4,4'-DDT	63
72-43-5	Methoxychlor	190 U
53494-70-5	Endrin Ketone	38 U
7421-93-4	Endrin Aldehyde	38 U
57-74-9	gamma Chlordane	19 U
5103-71-9	alpha Chlordane	19 U
8001-35-2	Toxaphene	1,900 U
12674-11-2	Aroclor 1016	380 U
53469-21-9	Aroclor 1242	380 U
12672-29-6	Aroclor 1248	380 U
11097-69-1	Aroclor 1254	380 U
11096-82-5	Aroclor 1260	380 U
11104-28-2	Aroclor 1221	760 U
11141-16-5	Aroclor 1232	380 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 85.0%  
Tetrachlorometaxylene D

FORM-1

005333

00391

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T914AL-RE  
LIMS ID: 97-17624

Matrix: Sediment

Data Release Authorized: *Roger*  
Reported: 11/07/97

Sample No: 9738 4950

REANALYSIS

WR-SD-SD078-0000

QC Report No: T914-Roy F. Weston  
Project: 1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

Date extracted: 10/24/97

Date analyzed: 11/07/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 52.4 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:50  
Percent Moisture: 30.4%  
pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	48 U
319-85-7	beta-BHC	48 U
319-86-8	delta-BHC	48 U
58-89-9	gamma-BHC (Lindane)	48 U
76-44-8	Heptachlor	48 U
309-00-2	Aldrin	48 U
1024-57-3	Heptachlor Epoxide	48 U
959-98-8	Endosulfan I	48 U
60-57-1	Dieldrin	95 U
72-55-9	4,4'-DDE	95 U
72-20-8	Endrin	95 U
33213-65-9	Endosulfan II	95 U
72-54-8	4,4'-DDD	100
1031-07-8	Endosulfan Sulfate	95 U
50-29-3	4,4'-DDT	280
72-43-5	Methoxychlor	480 U
53494-70-5	Endrin Ketone	95 U
7421-93-4	Endrin Aldehyde	95 U
57-74-9	gamma Chlordane	48 U
5103-71-9	alpha Chlordane	48 U
8001-35-2	Toxaphene	4,800 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

005340

00392

JMB  
1/22/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9738 4961

WR-SD- SD 096-0000

Lab Sample ID: T914AR QC Report No: T914-Roy F. Weston  
LIMS ID: 97-17630 Project: 1001.006  
Matrix: Sediment  
Data Release Authorized: *[Signature]* Date Sampled: 09/21/97  
Reported: 10/24/97 Date Received: 09/24/97

Date extracted: 10/10/97  
Date analyzed: 10/20/97 10/21/97 *(C)*  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: NO

Sample Amount: 51.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 40.0%  
pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	1.5 X UI
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	1.8 X UI
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	1.3 X UI
60-57-1	Dieldrin	2.0 X UI
72-55-9	4,4'-DDE	2.9 X UI
72-20-8	Endrin	5.0 X UI
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	2.0 U
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	5.3 X UI
72-43-5	Methoxychlor	10 X UI
53494-70-5	Endrin Ketone	12 X UI J
7421-93-4	Endrin Aldehyde	6.4 X UI
57-74-9	gamma Chlordane	3.2 X UI
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	200
11096-82-5	Aroclor 1260	49 X UI
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 48.2%  
Tetrachlorometaxylene 40.0%

FORM-1

0039?

*JMB*  
12/22/97

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD



ANALYTICAL  
RESOURCES  
INCORPORATED

Lab Sample ID: T914AW  
LIMS ID: 97-17635  
Matrix: Sediment

Data Release Authorized:  
Reported: 10/27/97

Sample No: 9738 4967  
WR-SD- SD(03- 0000

QC Report No: T914-Roy F. Weston  
Project:

1001.006

Date Sampled: 09/21/97  
Date Received: 09/24/97

*Cathie Weston*

Date extracted: 10/02/97  
Date analyzed: 10/11/97

Sample Amount: 50.4 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.3

GPC Cleanup: Yes  
Florisil Cleanup: No  
Acid Cleanup: Yes  
Sulfur Cleanup: Yes  
Conc/Dilution Factor: 1:1  
Percent Moisture: 49.6%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	21 <i>f</i> U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	55.8%
Tetrachlorometaxylene	53.2%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

00391

*JMB*  
12/22/97  
00493A



Roy F. Weston, Inc.  
Suite 5700  
700 5th Avenue  
Seattle, Washington 98104-5057  
206-521-7600 • Fax 206-521-7601

## MEMORANDUM

DATE: 3 February 1998

TO: John Meyer, WAM, U.S. EPA, Region X

FROM: *JMB*  
*Rnm* Jennifer M. Baier, Environmental Chemist, WESTON, Seattle  
Roger McGinnis, Senior Environmental Chemist, WESTON, Seattle

SUBJECT: Validation of Organics (Semivolatiles, Pesticides, and PCBs)  
SDG No: T971  
Site: Willamette River

WORK ASSIGNMENT NO: 46-23-0JZZ

DOC. CONTROL NO.: 4000-019-036-AABA

WORK ORDER NO.: 4000-019-036-5200-00

cc: Bruce Woods, RAP-WAM, U.S. EPA, Region X  
Karen Stash, Project Manager, WESTON, Seattle (memo only)

The quality assurance review of 68 samples, SDG T971, collected from the Willamette River has been completed. The sediment samples were analyzed at low level for semivolatiles, pesticides and PCBs by Analytical Resources, Inc. The samples were numbered:

97384968	97394715	97394731	97394748	97394764
97384970	97394716	97394732	97394749	97394765
97394700	97394718	97394733	97394750	97394766
97394702	97394719	97394734	97394751	97394767
97394704	97394720	97394736	97394752	97394768
97394705	97394722	97394738	97394753	97394770
97394706	97394723	97394739	97394755	97394771
97394707	97394724	97394741	97394756	97394772
97394708	97394725	97394742	97394758	97394775
97394710	97394726	97394743	97394759	97394776
97394711	97394727	97394744	97394760	97394777
97394712	97394728	97394745	97394761	97394778
97394713	97394729	97394746	97394762	
97394714	97394730	97394747	97394763	

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### Data Qualifications

The following comments refer to the laboratory performance in meeting the quality control criteria described in the technical specifications of the laboratory subcontract. The review follows the format described in the *National Functional Guidelines for Organic Data Review* (EPA OSWER Directive 9240.1-05, February 1994).

#### 1. Timeliness

All samples met holding time criteria except the following:

Sample Number	Fraction	Sampling Date	Extraction Date	Holding Time	QC Limit
97384968	BNA	9/21/97	10/15/97	24	14 days
97384970	BNA	9/21/97	10/15/97	24	14 days
97394700	BNA	9/21/97	10/15/97	24	14 days
97394702	BNA	9/21/97	10/15/97	24	14 days
97394704	BNA	9/21/97	10/15/97	24	14 days
97394705	BNA	9/21/97	10/15/97	24	14 days
97394706	BNA	9/21/97	10/15/97	24	14 days
97394707	BNA	9/21/97	10/15/97	24	14 days
97394708	BNA	9/21/97	10/15/97	24	14 days
97394710	BNA	9/21/97	10/15/97	24	14 days
97394711	BNA	9/22/97	10/15/97	23	14 days
97394712	BNA	9/22/97	10/15/97	23	14 days
97394713	BNA	9/22/97	10/15/97	23	14 days
97394714	BNA	9/22/97	10/15/97	23	14 days
97394715	BNA	9/22/97	10/15/97	23	14 days
97394716	BNA	9/22/97	10/15/97	23	14 days
97394718	BNA	9/22/97	10/15/97	23	14 days
97394719	BNA	9/22/97	10/15/97	23	14 days
97394720	BNA	9/22/97	10/15/97	23	14 days
97394722	BNA	9/22/97	10/15/97	23	14 days
97394723	BNA	9/22/97	10/15/97	23	14 days
97394724	BNA	9/22/97	10/15/97	23	14 days
97394725	BNA	9/22/97	10/15/97	23	14 days
97394726	BNA	9/22/97	10/15/97	23	14 days

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Sample Number	Fraction	Sampling Date	Extraction Date	Holding Time	QC Limit
97394727	BNA	9/22/97	10/15/97	23	14 days
97394728	BNA	9/22/97	10/15/97	23	14 days
97394729	BNA	9/22/97	10/15/97	23	14 days
97394730	BNA	9/22/97	10/15/97	23	14 days
97394731	BNA	9/22/97	10/15/97	23	14 days
97394732	BNA	9/23/97	10/15/97	22	14 days
97394733	BNA	9/23/97	10/15/97	22	14 days
97394734	BNA	9/23/97	10/15/97	22	14 days
97394736	BNA	9/23/97	10/15/97	22	14 days
97394738	BNA	9/23/97	10/15/97	22	14 days
97394739	BNA	9/23/97	10/15/97	22	14 days
97394741	BNA	9/23/97	10/15/97	22	14 days
97394742	BNA	9/23/97	10/15/97	22	14 days
97394743	BNA	9/23/97	10/15/97	22	14 days
97394744	BNA	9/23/97	10/15/97	22	14 days
97394745	BNA	9/23/97	10/15/97	22	14 days
97394746	BNA	9/23/97	10/15/97	22	14 days
97394747	BNA	9/23/97	10/15/97	22	14 days
97394748	BNA	9/23/97	10/15/97	22	14 days
97394749	BNA	9/23/97	10/15/97	22	14 days
97394750	BNA	9/23/97	10/15/97	22	14 days
97394751	BNA	9/23/97	10/15/97	22	14 days
97394752	BNA	9/23/97	10/15/97	22	14 days
97394753	BNA	9/23/97	10/15/97	22	14 days
97394755	BNA	9/23/97	10/15/97	22	14 days
97394756	BNA	9/23/97	10/15/97	22	14 days
97394758	BNA	9/24/97	10/15/97	21	14 days
97394759	BNA	9/24/97	10/15/97	21	14 days
97394760	BNA	9/24/97	10/15/97	21	14 days
97394761	BNA	9/24/97	10/15/97	21	14 days
97394762	BNA	9/24/97	10/15/97	21	14 days
97394763	BNA	9/24/97	10/15/97	21	14 days
97394764	BNA	9/24/97	10/15/97	21	14 days
97394765	BNA	9/24/97	10/15/97	21	14 days
97394766	BNA	9/24/97	10/15/97	21	14 days

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Sample Number	Fraction	Sampling Date	Extraction Date	Holding Time	QC Limit
97394767	BNA	9/24/97	10/15/97	21	14 days
97394768	BNA	9/24/97	10/15/97	21	14 days
97394770	BNA	9/24/97	10/15/97	21	14 days
97394771	BNA	9/24/97	10/15/97	21	14 days
97394772	BNA	9/24/97	10/15/97	21	14 days
97394775	BNA	9/24/97	10/15/97	21	14 days
97394776	BNA	9/24/97	10/15/97	21	14 days
97394777	BNA	9/24/97	10/15/97	21	14 days
97394778	BNA	9/24/97	10/15/97	21	14 days
97394700	Pest/PCB	9/21/97	10/15/97	24	14 days
97394702	Pest/PCB	9/21/97	10/15/97	24	14 days
97394704	Pest/PCB	9/21/97	10/15/97	24	14 days
97394705	Pest/PCB	9/21/97	10/15/97	24	14 days
97394706	Pest/PCB	9/21/97	10/15/97	24	14 days
97394707	Pest/PCB	9/21/97	10/28/97	37	14 days
97394708	Pest/PCB	9/21/97	10/15/97	24	14 days
97394710	Pest/PCB	9/21/97	10/15/97	24	14 days
97394711	Pest/PCB	9/22/97	10/15/97	23	14 days
97394712	Pest/PCB	9/22/97	10/15/97	23	14 days
97394713	Pest/PCB	9/22/97	10/28/97	36	14 days
97394714	Pest/PCB	9/22/97	10/15/97	23	14 days
97394716	Pest/PCB	9/22/97	10/15/97	23	14 days
97394719	Pest/PCB	9/22/97	10/15/97	23	14 days
97394720	Pest/PCB	9/22/97	10/15/97	23	14 days
97394722	Pest/PCB	9/22/97	10/15/97	23	14 days
97394723	Pest/PCB	9/22/97	10/15/97	23	14 days
97394724	Pest/PCB	9/22/97	10/15/97	23	14 days
97394729	Pest/PCB	9/22/97	10/15/97	23	14 days
97394730	Pest/PCB	9/22/97	10/15/97	23	14 days
97394732	Pest/PCB	9/23/97	10/15/97	22	14 days
97394734	Pest/PCB	9/23/97	10/15/97	22	14 days
97394736	Pest/PCB	9/23/97	10/15/97	22	14 days
97394738	Pest/PCB	9/23/97	10/15/97	22	14 days
97394739	Pest/PCB	9/23/97	10/15/97	22	14 days
97394750	Pest/PCB	9/23/97	10/15/97	22	14 days

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Sample Number	Fraction	Sampling Date	Extraction Date	Holding Time	QC Limit
97394751	Pest/PCB	9/23/97	10/15/97	22	14 days
97394753	Pest/PCB	9/23/97	10/15/97	22	14 days
97394756	Pest/PCB	9/23/97	10/15/97	22	14 days
97394758	Pest/PCB	9/24/97	10/15/97	21	14 days
97394760	Pest/PCB	9/24/97	11/11/97	48	14 days
97394765	Pest/PCB	9/24/97	10/15/97	21	14 days
97394766	Pest/PCB	9/24/97	10/15/97	21	14 days
97394777	Pest/PCB	9/24/97	10/15/97	21	14 days
97394778	Pest/PCB	9/24/97	10/15/97	21	14 days

Samples were stored at -18°C upon receipt by the laboratory and, thus, according to PSEP protocols, holding times may be extended to one year. No data were qualified.

2. GC/MS Instrument Performance Check

All tuning check compound mass abundances and ratios were within required limits.

3. Initial Calibration

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with average relative response factors RRF greater than or equal to 0.05.

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with RRF percent relative standard deviations (percent RSD) less than 30 percent except:

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Date	Fraction	Compound	Percent	Associated Samples
			RSD	
10/16/97	BNA	2,4-Dinitrophenol	50.1	97384968, 97384970, 97394700, 97394702, 97394704, 97394705, 97394706, 97394707, 97394708, 97394710, 97394711, 97394712, 97394713, 97394714, 97394715, 97394716, 97394718, 97394719, 97394720, 97394722, 97394723, 97394724, 97394725, 97394726, 97394727, 97394729, 97394730, 97394731, 97394732, 97394733, 97394736

Results and quantitation limits for compounds associated with the above calibrations and samples have been qualified as estimated (J) as a high RSD is indicative of calibration nonlinearity.

#### 4. Continuing Calibrations

All target compound list (TCL) analytes were within required limits for the continuing calibrations with average relative response factors  $\overline{RRF}$  greater than or equal to 0.05.

All target compound list (TCL) analytes were within required limits for the continuing calibration with  $\overline{RRF}$  percent differences less than 25 percent except:

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Date	Fraction	Compound	% Diff	Associated Samples
11/1/97	1303	2,2'-oxybis(1-Chloropropane)	49.4	97384968, 97394700,
		N-Nitroso-di-n-propylamine	27.8	97394702, 97394704,
		2-Nitroaniline	29.9	97394705, 97394706,
		2,4-Dinitrophenol	-35.2	97394707, 97394708,
		Nitrobenzene-d5 (surr)	28.8	97394710
		2,4,6-Tribromophenol (surr)	-31.1	
11/3/97	1210	2,2'-oxybis (1-Chloropropane)	51.3	97384970, 97394711,
		Benzoic Acid	-26.7	97394712
		2-Nitroaniline	36.8	
		2,4-Dinitrophenol	-32.8	
		Pentachlorophenol	-26.5	
		Nitrobenzene-d5 (surr)	28.0	
11/4/97	1130	2,2'-oxybis(1-Chloropropane)	54.2	97394713, 97394714,
		N-Nitroso-di-n-propylamine	28.2	97394715, 97394716,
		Benzoic Acid	-27.5	97394718, 97394719,
		2-Nitroaniline	29.6	97394720, 97394722,
		2,4-Dinitrophenol	-60.2	97394723, 97394724
		4-Nitrophenol	-25.2	
11/5/97	1140	Nitrobenzene-d5 (surr)	27.3	
		2,4,6-Tribromophenol (surr)	-29.7	
		2,2'-oxybis(1-Chloropropane)	47.3	97394725, 97394726,
		Nitrobenzene	26.2	97394727, 97394729,
		2-Nitroaniline	34.7	97394730, 97394731,
		Nitrobenzene-d5 (surr)	30.3	97394732, 97394736
11/12/97	1146	2,4-Dinitrophenol	-33.6	97394748, 97394750,
		4-Nitrophenol	-25.7	97394751, 97394752, 97394753, 97394755, 97394756, 97394759, 97394760
11/20/97	1102	2-Fluorophenol (surr)	29.1	97394733, 97394741

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J).

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5. Detection Limits—Acceptable

Laboratory reporting limits are equal to or less than project required quantitation limits.

6. Blanks

a. Laboratory Method Blanks

Laboratory method blank frequency criteria were met.

The following compounds were detected in laboratory method blanks.

Blank ID	Compound (RT)	Concen- tration	Associated Samples
Method Blank 11/1/97	1,1,2,2-Tetrachloroethane (6.3) Unknown (8.88)	47 JN 41 JN	97384968, 97394700, 97394702, 97394704, 97394705, 97394706, 97394707, 97394708, 97394710, 97384970, 97394711, 97394712, 97394713, 97394714, 97394715, 97394716, 97394718, 97394719, 97394720, 97394722
Method Blank 11/5/97	Unknown Freon (6.45) Unknown (9.03) Unknown (19.38)	24 JN 32 JN 24 JN	97394723, 97394724, 97394725, 97394726, 97394727, 97394729, 97394730, 97394731, 97394732, 97394736, 97394728, 97394734, 97394738, 97394739, 97394742, 97394743, 97394744, 97394745, 97394734DL, 97394727DL

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Blank ID	Compound (RT)	Concen-tration	Associated Samples
Method Blank 11/12/97	1,1,2,2-Tetrachloroethane (6.28) Unknown (8.85)	25 JN 26 JN	97394746, 97394747, 97394749, 97394748, 97394750, 97394751, 97394752, 97394753, 97394755, 97394756, 97394759, 97394760, 97394758, 97394761, 97394762, 97394763, 97394764, 97394766, 97394767, 97394768, 97394770, 97394771, 97394772, 97394775, 97394776, 97394777, 97394778, 97394765
Method Blank 11/20/97	1,1,2,2-Tetrachloroethane (6.22) Unknown (17.70)	62 JN 28 JN	97394733, 97394741

Reported levels of the above compounds were qualified as undetected with an adjusted quantitation limit (UJ) in samples if concentrations were less than five times concentrations present in the blank (ten times for common laboratory contaminants [e.g., phthalates]).

b. Field Blanks

No field blanks were associated with this SDG.

7. System Monitoring Compounds (Surrogates)

Surrogate compound percent recovery met quality control criteria for all samples except:

Sample	Fraction	Compound	Percent Recovery	QC Limits
97394745	BNA-acid	2,4,6-Tribromophenol	125	19-122

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Results and quantitation limits for samples listed above were qualified as estimated (J/UJ) if any two semivolatile surrogates were outside the recovery limits. No data qualification was required.

#### 8. Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) or matrix spike duplicate (MSD) percent recovery for the following compounds were outside QC guidelines.

Sample	Fraction	Compound	Percent Recovery	QC Limits
97394713	BNA	Pentachlorophenol	15.8%	17-109%
97394748	BNA	Pentachlorophenol	0.0%	17-109%
LCS (97-18025)	BNA	N-Nitroso-di-n-propylamine	30.9%	41-126%
LCS (97-18045)	BNA	N-Nitroso-di-n-propylamine	36.8%	41-126%

Relative percent differences (RPD) between the MS and MSD percent recoveries exceeded QC guidelines for the following compounds:

Sample	Fraction	Compound	RPD	QC Limits
97394713	BNA	Pentachlorophenol	62	≤50%

No action was taken based solely on MS/MSD data, with the exception of sample 97394748 for pentachlorophenol. The sample result was qualified as rejected (R) due to the percent recovery being below 10%.

#### 9. Field Duplicate Analysis

Samples 97394712/97394713, 97394729/97394730, 97394750/97394751, 97394765/97394766, and 97394777/97394778 were field duplicates. Results exhibited reasonable agreement, with the exception of the following:

Sample IDs	Compound	Original Conc.	Duplicate Conc.	RPD
97394750/51	4-Methylphenol	210	360	52.63

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Sample IDs	Compound	Original Conc.	Duplicate Conc.	RPD
97394729/30	Fluoranthene	300	170	55.32
	Pyrene	350	230	41.38
	Chrysene	190	130	37.50
97394777/78	Phenanthrene	120	200	50.00
97394712/13	4,4'-DDD	290	460	45.33

No action was taken since field duplicate results reflect field variability rather than laboratory performance.

10. Internal Standards Performance

Internal standard areas were within requirements of -50 percent to +100 percent of associated calibration internal standard areas. Retention time shifts for internal standards met requirements of less than 30 seconds.

11. GC/ECD Instrument Performance

a. Resolution Check Mixture

The resolution check mixture was analyzed at the proper frequency. Resolution (valley depth) between adjacent peaks was greater than 60 percent of the shorter peak.

b. Performance Evaluation Mixture

i. Frequency

Samples were analyzed at the proper frequency.

ii. Resolution

Resolution was greater than 90 percent for all adjacent peaks.

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iii. Retention Time Windows

Retention times of all pesticides were within windows calculated from the initial calibration.

iv. Pesticide Recovery

Recovery for all single component pesticides and surrogate compounds were within QC limits of 75 to 125 percent for both GC columns.

v. DDT/Endrin Breakdown

Percent breakdown for 4,4'-DDT and/or Endrin exceeded QC criteria of 20 percent for each compound or 30 percent for combined breakdown in the samples listed:

Date	Time	Compound	Percent Breakdown	Associated Samples
11/13/97	16:34	Combined DDT + Endrin % Breakdown	31.6	97394760RE

Positive results in associated samples for compounds listed above were qualified as estimated (J). Positive results for breakdown products were qualified as tentatively present with estimated concentration (NJ). If parent compounds listed above were not found, but breakdown products were detected, quantitation limits for compounds listed in the table above were rejected (R). Data qualification was not required because parent and breakdown products were not detected.

12. Pesticide Initial Calibration

a. Individual Standard Mixtures

Resolution between adjacent peaks for the initial calibration, mid level concentration was greater than 90 percent.

Retention time windows were calculated correctly.

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Appropriate standards concentrations were used and peak heights of 50 to 100 percent of full scale were obtained.

Calibration factor percent relative standard deviation (%RSD) exceeded QC criteria of 20 percent for pesticides and 30 percent for surrogates listed below:

Date	GC Column	Compound	% RSD	Associated Samples
11/11/97	DB-5	delta-BHC	21.9	None
		4,4'DDT	27.3	

Results and quantitation limits for analytes listed above have been qualified as estimated (J).

### 13. Pesticide Calibration Verification

Instrument blanks and PEM samples were analyzed at the proper frequency.

Resolution between adjacent peaks in individual pesticide mixtures exceeded 90 percent.

Pesticide standard peaks actual and calculated concentrations of individual pesticides was within QC criteria of  $\pm 25$  percent.

The difference between actual and calculated concentrations of individual pesticides exceeded QC criteria of  $\pm 25$  percent for the following pesticides:

Date	Time	GC Column	Compound	% Diff	Associated Samples
11/6/97	19:31	DB-608	alpha-Chlordane	-35	None
11/17/97	20:35	DB-5	delta-BHC	40	None
			Endosulfan sulfate	35	
			Endrin ketone	28	
11/17/97	20.35	DB-608	alpha-Chlordane	-30	None

No qualifiers were assigned.

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14. Pesticide Cleanup Checks

a. Florisil Cartridge Cleanup

Recovery for mixture A pesticides and surrogates were within QC limits of 80 to 120 percent. Recovery of 2,4,5-trichlorophenol was less than 5 percent as required.

b. Gel Permeation Cleanup (GPC)

All pesticides in the matrix spiking solution met recovery limits of 80 to 110 percent. Aroclor-1016 and 1260 patterns matched those of standards.

GPC blank concentrations did not exceed one-half the CRDL for any target analytes.

15. Sample Analysis

The following sample results exhibit greater than 35 percent difference (% D) between the primary and confirmation columns for pesticide analysis.

Sample	Compound	DB-5 Conc.	DB-608 Conc.	% D
97394700DL	4,4'-DDT	110	190	72.7
97394706DL	4,4'-DDT	550	370	48.6
97394710DL	4,4'-DDD	160	440	175
97394711DL	4,4'-DDD	16	27	68.8
97394712DL	4,4'-DDE	20	47	135
97394714DL	4,4'-DDD	410	710	73.2
97394729	4,4'-DDE	4.3	1.7	152.9
	4,4'-DDD	3.3	1.7	94.1
	Aroclor 1254	33	19	74
97394730DL	4,4'-DDD	170	97	75.3
	4,4'-DDT	83	53	56.6
97394750	4,4'-DDE	3.9	2.6	50
	4,4'-DDD	6.7	4.7	42.6

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3 February 1998

00108



QA Case T971 (Organics)

Site: Willamette River

Page 15

Sample	Compound	DB-5 Conc.	DB-608 Conc.	% D
97394751	4,4'-DDE	2.4	1.4	71.4
	4,4'-DDD	4.7	1.9	147.4
	4,4'-DDT	2.8	1.8	55.6
97394758	4,4'-DDE	2.6	1.4	85.7
97394760	Aroclor 1260	110	61	80
97394765	4,4'-DDE	2.6	1.7	52.9
97394766	4,4'-DDE	2.5	1.6	56.2
	4,4'-DDT	2.3	1.5	53.3

The percent differences are not deemed significant at the reported concentrations. The lower concentration was reported for each analyte.

#### 16. Laboratory Contact

No laboratory contact was required.

#### Data Assessment

Upon consideration of the data qualifications noted above, the data are ACCEPTABLE for use except where flagged with data qualifiers that modify the usefulness of the individual values.

#### Data Qualifiers

- U - The compound was analyzed for, but was not detected.
- UJ - The compound was analyzed for, but was not detected. The associated quantitation limit is an estimate because quality control criteria were not met.
- J - The analyte was positively identified, but the associated numerical value is an estimated quantity because quality control criteria were not met or because concentrations reported are less than the quantitation limit or lowest calibration standard.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification.
- N - Presumptive evidence of presence of material (tentative identification).

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QA Case T971 (Organics)

Site: Willamette River

Page 16

UI - The compound was analyzed for, but was not detected. The quantitation limit was increased due to matrix interferences.

~~This document was prepared by Roy F. Weston, Inc. expressly for the EPA. It shall not be disclosed in whole or in part without the express, written permission of the EPA.~~

JRM

98-0015a.dvm  
DCN 4000-019-036-AABA

3 February 1998

00410



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971A

LIMS ID: 97-18025

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/19/97

Sample No: 9738 4968

WR-SD- SD102-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.2%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	210
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00411

746

JMB  
1/23/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971A

LIMS ID: 97-18025

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/19/97

Sample No: 9738 4968

WR-SD - SD102-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.2%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	19 U
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	26
129-00-0	Pyrene	34
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	19 U
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	19 U
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	38.8%	d5-Phenol	41.6%
2-Fluorobiphenyl	44.1%	2-Fluorophenol	35.5%
d14-p-Terphenyl	54.0%	2,4,6-Tribromophenol	43.0%
d4-1,2-Dichlorobenzene	29.3%	d4-2-Chlorophenol	37.0%

FORM-1

00412

747

JMB  
1/23/00



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4968

WR-SD-SD102-0000

Lab Sample ID: T971A

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18025

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/21/97

Date Received: 09/27/97

Data Release Authorized: *mf*

Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.15	SVOA	560 JN
2. --	Unknown_____	8.93	SVOA	1,100 JN
3. 103-82-2	Benzeneacetic_acid_____	14.27	SVOA	500 JN
4. 1002-84-2	Pentadecanoic_acid_____	23.05	SVOA	360 JN
5. --	Unknown_____	23.18	SVOA	310 JN
6. 2091-29-4	9-Hexadecenoic_acid_____	24.62	SVOA	990 JN
7. 57-10-3	Hexadecanoic_acid_____	24.88	SVOA	850 JN
8. --	Unknown_____	25.37	SVOA	200 JN
9. 112-80-1	Oleic_Acid_____	27.03	SVOA	1,200 JN
10. 57-11-4	Octadecanoic_acid_____	27.23	SVOA	330 JN
11. --	Unknown_Alkyl_PNA_____	27.95	SVOA	330 JN
12. --	Unknown_____	34.00	SVOA	640 JN
13. --	Unknown_____	36.42	SVOA	1,500 JN
14. 57-88-5	Cholesterol_____	36.75	SVOA	1,400 JN
15. --	Unknown_____	37.13	SVOA	590 JN
16. 4651-51-8	Ergost-5-en-3-ol,_-(3.beta	37.60	SVOA	640 JN
17. 83-48-7	Stigmasterol_____	37.83	SVOA	410 JN
18. 83-47-6	.gamma.-Sitosterol_____	38.28	SVOA	4,500 JN
19. --	Unknown_____	38.55	SVOA	840 JN
20. --	Unknown_____	38.72	SVOA	910 JN

FORM-1-B

00413

748  
JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971B

LIMS ID: 97-18026

Matrix: Sediment

Data Release Authorized: *ony*

Reported: 11/19/97

Sample No: 9738 4970

WR-SD-SD101-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.3%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	360
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	94 U
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00414

-788  
JMB  
1/23/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971B

LIMS ID: 97-18026

Matrix: Sediment

Data Release Authorized: *mp*

Reported: 11/19/97

Sample No: 9738 4970

WR-SD-SD101-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 53.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.3%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	94 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U J
85-01-8	Phenanthere	19 U
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	21 MN
206-44-0	Fluoranthene	27
129-00-0	Pyrene	28
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	140
218-01-9	Chrysene	19
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	19 U
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	67.6%	d5-Phenol	69.5%
2-Fluorobiphenyl	75.3%	2-Fluorophenol	61.8%
d14-p-Terphenyl	82.0%	2,4,6-Tribromophenol	88.5%
d4-1,2-Dichlorobenzene	57.1%	d4-2-Chlorophenol	59.9%

FORM-1

00415

789  
JMB  
1/23



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9738 4970

WR-SD- SD161-0000

Lab Sample ID: T971B

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18026

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/21/97

Date Received: 09/27/97

Data Release Authorized: *AMP*

Reported: 11/19/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.45	SVOA	850 JN
2. 143-07-7	Dodecanoic_acid_____	19.45	SVOA	300 JN
3. --	Unknown_____	21.30	SVOA	200 JN
4. 544-63-8	Tetradecanoic_acid_____	22.32	SVOA	190 JN
5. --	Unknown_____	23.22	SVOA	400 JN
6. --	Unknown_____	24.47	SVOA	230 JN
7. 2091-29-4	9-Hexadecenoic_acid_____	24.77	SVOA	640 JN
8. --	Unknown_____	25.52	SVOA	270 JN
9. --	Unknown_____	26.73	SVOA	240 JN
10. 57-11-4	Octadecanoic_acid_____	27.38	SVOA	250 JN
11. --	Unknown_Alkyl_PNA_____	28.13	SVOA	440 JN
12. 112-85-6	Docosanoic_acid_____	31.70	SVOA	260 JN
13. --	Unknown_PNA_+ C.E._____	32.62	SVOA	200 JN
14. --	Unknown_____	33.67	SVOA	210 JN
15. --	Unknown_Aldehyde_____	34.25	SVOA	560 JN
16. --	Unknown_Aldehyde_____	36.05	SVOA	260 JN
17. 57-88-5	Cholesterol_____	36.93	SVOA	550 JN
18. --	Unknown_____	37.32	SVOA	280 JN
19. 4651-51-8	Ergost-5-en-3-ol,_(3. $\beta$ ) .gamma.-Sitosterol_____	37.77	SVOA	470 JN
20. 83-47-6	_____	38.47	SVOA	2,600 JN

-790 *M/B*  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971C

LIMS ID: 97-18027

Matrix: Sediment

Data Release Authorized: *By*

Reported: 11/19/97

Sample No: 9739 4700

WR-SD- SD 080-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.0%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	500
621-64-7	N-Nitroso-Di-N-Propylamine	38 U <i>J</i>
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	31
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	32
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00417

833 *jmB*  
1231



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971C

LIMS ID: 97-18027

Matrix: Sediment

Data Release Authorized: ~~NO~~

Reported: 11/19/97

Sample No: 9739 4700

WR-SD-SD080-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.0%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	30
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	180
86-74-8	Carbazole	19 U
120-12-7	Anthracene	64
84-74-2	Di-n-Butylphthalate	21
206-44-0	Fluoranthene	310
129-00-0	Pyrene	390
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	220
117-81-7	bis(2-Ethylhexyl)phthalate	260
218-01-9	Chrysene	310
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	170
207-08-9	Benzo(k)fluoranthene	190
50-32-8	Benzo(a)pyrene	240
193-39-5	Indeno(1,2,3-cd)pyrene	140
53-70-3	Dibenz(a,h)anthracene	34
191-24-2	Benzo(g,h,i)perylene	130

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.4%	d5-Phenol	56.6%
2-Fluorobiphenyl	63.5%	2-Fluorophenol	53.2%
d14-p-Terphenyl	61.2%	2,4,6-Tribromophenol	64.3%
d4-1,2-Dichlorobenzene	50.6%	d4-2-Chlorophenol	56.7%

FORM-1

00418

JMB  
1/23/98  
833A



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4700

WR-SD - SD080 - 0000

Lab Sample ID: T971C

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18027

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/21/97

Date Received: 09/27/97

Data Release Authorized: *OKP*

Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid	14.40	SVOA	1,200 JN
2. 1002-84-2	Pentadecanoic_acid	23.10	SVOA	600 JN
3. --	Unknown	24.27	SVOA	580 JN
4. --	Unknown	24.67	SVOA	1,300 JN
5. --	Unknown	24.77	SVOA	1,100 JN
6. --	Unknown	24.90	SVOA	2,000 JN
7. --	Unknown	25.32	SVOA	710 JN
8. --	Unknown	25.62	SVOA	650 JN
9. --	Unknown	26.60	SVOA	680 JN
10. 112-80-1	Oleic_Acid	27.20	SVOA	1,200 JN
11. --	Unknown_PNA + C.E.	28.38	SVOA	48,000 JN
12. 57-11-4	Octadecanoic_acid	29.55	SVOA	760 JN
13. 112-85-6	Docosanoic_acid	31.67	SVOA	2,000 JN
14. --	Unknown	31.83	SVOA	1,100 JN
15. --	Unknown	32.83	SVOA	3,100 JN
16. --	Unknown	34.12	SVOA	1,100 JN
17. 57-88-5	Cholesterol	36.78	SVOA	1,100 JN
18. --	Unknown	38.07	SVOA	1,400 JN
19. 83-47-6	.gamma.-Sitosterol	38.32	SVOA	4,800 JN
20. --	Unknown	38.67	SVOA	700 JN

FORM-1-B

00419

8340/MK  
1/23



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971D

LIMS ID: 97-18028

Matrix: Sediment

Data Release Authorized: *EWB*

Reported: 11/19/97

Sample No: 9739 4702

WR-SD- SD081-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.3%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methyphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	200
621-64-7	N-Nitroso-Di-N-Propylamine	40 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

891

00420

*JMB*  
*1123*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971D

LIMS ID: 97-18028

Matrix: Sediment

Data Release Authorized: *MM*

Reported: 11/19/97

Sample No: 9739 4702

WR-SD- SDC81-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.3%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	45
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	81
129-00-0	Pyrene	120
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	46
117-81-7	bis(2-Ethylhexyl)phthalate	210
218-01-9	Chrysene	71
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	54
207-08-9	Benzo(k)fluoranthene	63
50-32-8	Benzo(a)pyrene	79
193-39-5	Indeno(1,2,3-cd)pyrene	63
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	61

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.6%	d5-Phenol	54.0%
2-Fluorobiphenyl	61.8%	2-Fluorophenol	54.3%
d14-p-Terphenyl	71.9%	2,4,6-Tribromophenol	69.6%
d4-1,2-Dichlorobenzene	49.4%	d4-2-Chlorophenol	53.3%

FORM-1

00421

892

JMB  
112310



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4702

WR-SD-SD081-0000

Lab Sample ID: T971D

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18028

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/21/97

Date Received: 09/27/97

Data Release Authorized: *OKP*

Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.03	SVOA	660 JN
2. 103-82-2	Benzeneacetic_acid_____	14.28	SVOA	590 JN
3. 143-07-7	Dodecanoic_acid_____	19.30	SVOA	310 JN
4. 544-63-8	Tetradecanoic_acid_____	22.17	SVOA	140 JN
5. --	Unknown_____	23.05	SVOA	280 JN
6. --	Unknown_____	23.17	SVOA	240 JN
7. --	Unknown_____	24.32	SVOA	170 JN
8. 2091-29-4	9-Hexadecenoic_acid_____	24.60	SVOA	770 JN
9. 57-10-3	Hexadecanoic_acid_____	24.87	SVOA	670 JN
10. --	Unknown_____	25.37	SVOA	140 JN
11. --	Unknown_____	27.02	SVOA	340 JN
12. 57-11-4	Octadecanoic_acid_____	27.23	SVOA	150 JN
13. --	Unknown_Alkyl_PNA_____	27.95	SVOA	130 JN
14. 50-29-3	Chlorophenothane_(DDT)_____	29.45	SVOA	140 JN
15. --	Unknown_Phthalate_____	29.82	SVOA	120 JN
16. --	Unknown_Aldehyde_____	34.07	SVOA	410 JN
17. --	Unknown_____	35.87	SVOA	180 JN
18. 57-88-5	Cholesterol_____	36.75	SVOA	190 JN
19. 83-47-6	.gamma.-Sitosterol_____	38.27	SVOA	1,300 JN
20. --	Unknown_____	38.70	SVOA	380 JN



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971E

LIMS ID: 97-18029

Matrix: Sediment

Data Release Authorized: EMZ

Reported: 11/19/97

Sample No: 9739 4704

WR-SD - SD083-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 53.1%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	330
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	25
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	25
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00423

941 grne  
123



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971E

LIMS ID: 97-18029

Matrix: Sediment

Data Release Authorized: *BM*

Reported: 11/19/97

Sample No: 9739 4704

WR-SD- SD083-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 53.1%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	29
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	170
86-74-8	Carbazole	19 U
120-12-7	Anthracene	51
84-74-2	Di-n-Butylphthalate	23
206-44-0	Fluoranthene	330
129-00-0	Pyrene	500
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	180
117-81-7	bis(2-Ethylhexyl)phthalate	480
218-01-9	Chrysene	300
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	230
207-08-9	Benzo(k)fluoranthene	150
50-32-8	Benzo(a)pyrene	240
193-39-5	Indeno(1,2,3-cd)pyrene	150
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	150

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	55.4%	d5-Phenol	53.1%
2-Fluorobiphenyl	58.6%	2-Fluorophenol	50.5%
d14-p-Terphenyl	83.9%	2,4,6-Tribromophenol	60.2%
d4-1,2-Dichlorobenzene	44.8%	d4-2-Chlorophenol	52.1%

FORM-1

00124

*gMB*  
*11/23/98*  
*942*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4704

WR-SD - SD083-0000

Lab Sample ID: T971E  
LIMS ID: 97-18029  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Data Release Authorized: *DRP*  
Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.32	SVOA	940 JN
2. 103-82-2	Benzeneacetic acid	14.33	SVOA	990 JN
3. 544-63-8	Tetradecanoic acid	22.22	SVOA	310 JN
4. --	Unknown	23.08	SVOA	450 JN
5. --	Unknown	23.75	SVOA	390 JN
6. --	Unknown	24.40	SVOA	350 JN
7. 2091-29-4	9-Hexadecenoic acid	24.68	SVOA	1,200 JN
8. --	Unknown	25.15	SVOA	290 JN
9. --	Unknown	26.60	SVOA	660 JN
10. 112-80-1	Oleic Acid	27.08	SVOA	940 JN
11. --	Unknown_Alkyl_PNA	28.02	SVOA	1,200 JN
12. --	Methylpyrene_Isomer	28.25	SVOA	270 JN
13. 50-29-3	Chlorophenothane_(DDT)	29.50	SVOA	510 JN
14. --	Unknown	31.85	SVOA	700 JN
15. --	Unknown	32.30	SVOA	1,800 JN
16. --	Unknown	33.58	SVOA	760 JN
17. --	Unknown_Aldehyde	34.13	SVOA	1,400 JN
18. --	Unknown	36.90	SVOA	2,200 JN
19. 83-47-6	.gamma.-Sitosterol	38.35	SVOA	5,200 JN
20. --	Unknown	38.63	SVOA	390 JN

FORM-1-B

00425

943 9/23/11  
JM



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971F

LIMS ID: 97-18030

Matrix: Sediment

Data Release Authorized: BLW

Reported: 11/19/97

Sample No: 9739 4705

WR-SD- SD 084-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.5%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	330
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00426

997 JMK  
1123



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971F

LIMS ID: 97-18030

Matrix: Sediment

Data Release Authorized: *gyp*

Reported: 11/19/97

Sample No: 9739 4705

WR-SD-SD084-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.5%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	71
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	150
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	66
117-81-7	bis(2-Ethylhexyl)phthalate	140
218-01-9	Chrysene	92
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	59
207-08-9	Benzo(k)fluoranthene	64
50-32-8	Benzo(a)pyrene	68
193-39-5	Indeno(1,2,3-cd)pyrene	46
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	42

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	37.7%	d5-Phenol	40.2%
2-Fluorobiphenyl	45.2%	2-Fluorophenol	38.2%
d14-p-Terphenyl	56.6%	2,4,6-Tribromophenol	45.2%
d4-1,2-Dichlorobenzene	27.8%	d4-2-Chlorophenol	38.4%

FORM-1

00127

*JMB*  
1/23/98  
998



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4705  
WR-SD-SD084-0000  
Lab Sample ID: T971F QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18030 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/21/97  
Date Received: 09/27/97  
Data Release Authorized: *DMK*  
Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	6.03	SVOA	430 JN
2. --	Unknown_____	8.90	SVOA	500 J N
3. 103-82-2	Benzeneacetic_acid_____	14.30	SVOA	610 JN
4. 143-07-7	Dodecanoic_acid_____	19.28	SVOA	240 JN
5. 544-63-8	Tetradecanoic_acid_____	22.18	SVOA	180 JN
6. 1002-84-2	Pentadecanoic_acid_____	23.07	SVOA	430 JN
7. --	Unknown_____	23.52	SVOA	190 J N
8. --	Unknown_____	24.35	SVOA	180 J N
9. 2091-29-4	9-Hexadecenoic_acid_____	24.62	SVOA	1,100 JN
10. 57-10-3	Hexadecanoic_acid_____	24.90	SVOA	1,200 JN
11. --	Unknown_____	26.65	SVOA	170 J N
12. 112-80-1	Oleic_Acid_____	27.05	SVOA	1,000 JN
13. 57-11-4	Octadecanoic_acid_____	27.25	SVOA	320 JN
14. --	Unknown_Alkyl_PNA_____	27.97	SVOA	200 J N
15. --	Unknown_____	32.25	SVOA	310 J N
16. --	Unknown_Aldehyde_____	34.08	SVOA	810 J N
17. --	Unknown_____	35.88	SVOA	240 J N
18. 57-88-5	Cholesterol_____	36.77	SVOA	1,200 JN
19. 83-47-6	.gamma.-Sitosterol_____	38.30	SVOA	3,000 JN
20. --	Unknown_____	38.57	SVOA	250 J N

FORM-1-B

00428

999 *JMK*  
11231



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971G

LIMS ID: 97-18031

Matrix: Sediment

Data Release Authorized: *out*

Reported: 11/19/97

Sample No: 9739 4706

WR-SD- SD085- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	42
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	22
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	21
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

60429

1047

*JMB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971G

LIMS ID: 97-18031

Matrix: Sediment

Data Release Authorized: *WR*

Reported: 11/19/97

Sample No: 9739 4706

WR-SD-SD085-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	19 J
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	110
86-74-8	Carbazole	20 U
120-12-7	Anthracene	67
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	180
129-00-0	Pyrene	260
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	120
117-81-7	bis(2-Ethylhexyl)phthalate	370
218-01-9	Chrysene	160
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	95
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	88

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.4%	d5-Phenol	50.4%
2-Fluorobiphenyl	47.5%	2-Fluorophenol	49.5%
d14-p-Terphenyl	66.6%	2,4,6-Tribromophenol	57.4%
d4-1,2-Dichlorobenzene	37.8%	d4-2-Chlorophenol	49.5%

FORM-1

00430

1048

JMB  
12310



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4706

WR-SD-SD085-0000

Lab Sample ID: T971G  
LIMS ID: 97-18031  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Data Release Authorized: *MFB*  
Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	6.15	SVOA	550 JN
2. 79-34-5	Ethane,_1,1,2,2-tetrachlo	6.32	SVOA	190 S <del>N</del> -R
3. 103-82-2	Benzeneacetic_acid_____	14.30	SVOA	670 JN
4. --	Unknown_____	17.00	SVOA	140 JN
5. --	Unknown_____	18.22	SVOA	120 JN
6. --	Naphthalene,_1,2,3,4_-Iso	18.68	SVOA	150 JN
7. --	Unknown_____	21.70	SVOA	86 JN
8. 1002-84-2	Pentadecanoic_acid_____	23.17	SVOA	210 JN
9. --	Unknown_____	23.52	SVOA	100 JN
10. 2091-29-4	9-Hexadecenoic_acid_____	24.62	SVOA	280 JN
11. --	Unknown_____	25.15	SVOA	130 JN
12. --	Unknown_____	25.62	SVOA	86 JN
13. --	Unknown_____	26.60	SVOA	180 JN
14. --	Unknown_Alkyl_PNA_____	28.02	SVOA	530 J N
15. --	Unknown_____	32.50	SVOA	430 J N
16. --	Unknown_____	33.02	SVOA	100 J N
17. --	Unknown_Aldehyde_____	34.13	SVOA	670 J N
18. --	Unknown_____	35.92	SVOA	210 J N
19. --	Unknown_____	38.42	SVOA	2,200 J N
20. --	Unknown_____	38.62	SVOA	230 J N

FORM-1-B  
06.431

1049

JMK  
1/23



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971H

LIMS ID: 97-18032

Matrix: Sediment

Data Release Authorized: *anp*

Reported: 11/19/97

Sample No: 9739 4707

WR-SD-SD087-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.4%

pH: 6.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	260
621-64-7	N-Nitroso-Di-N-Propylamine	40 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	23
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

96432

1102

*JMB*  
11/23/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971H

LIMS ID: 97-18032

Matrix: Sediment

Data Release Authorized: *anf*

Reported: 11/19/97

Sample No: 9739 4707

WR-SD- SD087-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/01/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.4%

pH: 6.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	27
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	150
86-74-8	Carbazole	20 U
120-12-7	Anthracene	41
84-74-2	Di-n-Butylphthalate	39
206-44-0	Fluoranthene	290
129-00-0	Pyrene	320
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	150
117-81-7	bis(2-Ethylhexyl)phthalate	210
218-01-9	Chrysene	260
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	160
207-08-9	Benzo(k)fluoranthene	140
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	96
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	90

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.8%	d5-Phenol	47.1%
2-Fluorobiphenyl	48.9%	2-Fluorophenol	49.1%
d14-p-Terphenyl	63.3%	2,4,6-Tribromophenol	55.7%
d4-1,2-Dichlorobenzene	37.8%	d4-2-Chlorophenol	44.7%

FORM-1

30433

1103

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4707

WR-SD-SD087-0000

Lab Sample ID: T971H  
LIMS ID: 97-18032  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Data Release Authorized: *AWP*  
Reported: 11/19/97

Date Analyzed: 11/01/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl-	5.80	SVOA	360 JN
2. --	Unknown_____	6.30	SVOA	930 J N
3. 103-82-2	Benzeneacetic_acid_____	14.35	SVOA	920 JN
4. 544-63-8	Tetradecanoic_acid_____	22.20	SVOA	150 JN
5. 1002-84-2	Pentadecanoic_acid_____	23.07	SVOA	290 JN
6. --	Unknown_____	23.20	SVOA	370 J N
7. --	Unknown_____	23.73	SVOA	150 J N
8. 57-10-3	Hexadecanoic_acid_____	24.37	SVOA	170 JN
9. 2091-29-4	9-Hexadecenoic_acid_____	24.63	SVOA	850 JN
10. --	Unknown_____	25.38	SVOA	180 J N
11. 112-80-1	Oleic_Acid_____	27.05	SVOA	500 JN
12. 57-11-4	Octadecanoic_acid_____	27.25	SVOA	170 JN
13. --	Unknown_Alkyl_PNA_____	27.98	SVOA	270 J N
14. 50-29-3	Chlorophenothane_(DDT)_____	29.48	SVOA	290 JN
15. 112-85-6	Docosanoic_acid_____	31.57	SVOA	160 JN
16. --	Unknown_____	32.25	SVOA	240 J N
17. --	Unknown_____	33.52	SVOA	150 J N
18. 56554-86-0	Octadecenal_Iso_____	34.10	SVOA	540 JN
19. 57-88-5	Cholesterol_____	36.78	SVOA	570 JN
20. --	Unknown_____	38.38	SVOA	2,200 J N

FORM-1-B

66434

JME  
1104 12319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971I

LIMS ID: 97-18033

Matrix: Sediment

Data Release Authorized: *MJS*

Reported: 11/19/97

Sample No: 9739 4708

WR-SD- SD088-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/02/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	22
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	80
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	36
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00435

1156

*MJS*  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971I

LIMS ID: 97-18033

Matrix: Sediment

Data Release Authorized: *MP*

Reported: 11/19/97

Sample No: 9739 4708

WR-SD- SD088-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/02/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	54
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	25 <i>XUL</i>
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	350
86-74-8	Carbazole	19 U
120-12-7	Anthracene	47
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	740
129-00-0	Pyrene	600
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	220
117-81-7	bis(2-Ethylhexyl)phthalate	270
218-01-9	Chrysene	310
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	180
207-08-9	Benzo(k)fluoranthene	170
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	82
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	66

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.3%	d5-Phenol	57.9%
2-Fluorobiphenyl	60.9%	2-Fluorophenol	57.3%
d14-p-Terphenyl	64.2%	2,4,6-Tribromophenol	58.9%
d4-1,2-Dichlorobenzene	50.7%	d4-2-Chlorophenol	56.0%

FORM-1

00436

1157

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4708

WR-SD-SD088-0000

Lab Sample ID: T971I  
LIMS ID: 97-18033  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Data Release Authorized: *GRB*  
Reported: 11/19/97

Date Analyzed: 11/02/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.15	SVOA	280 JN
2. 103-82-2	Benzeneacetic_acid_____	14.28	SVOA	590 JN
3. --	Unknown_____	17.00	SVOA	160 J N
4. --	Unknown_____	21.43	SVOA	120 J N
5. --	Unknown_____	21.57	SVOA	110 J N
6. --	Unknown_____	23.17	SVOA	98 J N
7. --	Unknown_____	23.53	SVOA	94 J N
8. --	Unknown_____	24.60	SVOA	260 J N
9. 506-12-7	Heptadecanoic_acid_____	24.85	SVOA	260 J N
10. --	Unknown_____	25.05	SVOA	140 J N
11. --	Unknown_____	25.15	SVOA	590 J N
12. --	Unknown_____	25.62	SVOA	86 J N
13. 10544-50-0	Sulfur,_mol._(S8)_____	25.87	SVOA	290 J N
14. --	Unknown_____	26.60	SVOA	160 J N
15. --	Unknown_PNA+_C.E._____	27.98	SVOA	370 J N
16. 50-29-3	Chlorophenothane_(DDT)_____	29.50	SVOA	620 J N
17. --	Unknown_____	33.55	SVOA	210 J N
18. --	Octadecenal_Iso_____	34.12	SVOA	600 J N
19. --	Unknown_____	36.87	SVOA	300 J N
20. --	Unknown_____	38.40	SVOA	2,200 J N

FORM-1-B

00137

1158 *JMK*  
*1/23/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971J

LIMS ID: 97-18034

Matrix: Sediment

Data Release Authorized: *GRS*

Reported: 11/19/97

Sample No: 9739 4710

WR-SD- SD090-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/02/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.5%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	190
621-64-7	N-Nitroso-Di-N-Propylamine	40 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	24
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	170
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	100
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00438

MB  
1211 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971J

LIMS ID: 97-18034

Matrix: Sediment

Data Release Authorized: *MW*

Reported: 11/19/97

Sample No: 9739 4710

WR-SD- SD090-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/02/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.5%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	160
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	710
86-74-8	Carbazole	20 U
120-12-7	Anthracene	77
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	790
129-00-0	Pyrene	710
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	310
117-81-7	bis(2-Ethylhexyl)phthalate	170
218-01-9	Chrysene	330
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	210
207-08-9	Benzo(k)fluoranthene	200
50-32-8	Benzo(a)pyrene	180
193-39-5	Indeno(1,2,3-cd)pyrene	95
53-70-3	Dibenz(a,h)anthracene	26
191-24-2	Benzo(g,h,i)perylene	76

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	52.6%	d5-Phenol	53.0%
2-Fluorobiphenyl	62.3%	2-Fluorophenol	50.6%
d14-p-Terphenyl	71.3%	2,4,6-Tribromophenol	65.7%
d4-1,2-Dichlorobenzene	40.6%	d4-2-Chlorophenol	51.1%

FORM-1

00439

*MWB*  
1/23/98  
1212



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4710  
WR-SD-SD090-0000  
Lab Sample ID: T971J QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18034 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/21/97  
Date Received: 09/27/97  
Data Release Authorized: *BB*  
Reported: 11/19/97

Date Analyzed: 11/02/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.30	SVOA	980 JN
2. 103-82-2	Benzeneacetic_acid_____	14.35	SVOA	840 JN
3. --	Unknown_____	23.05	SVOA	200 J N
4. --	Unknown_____	23.17	SVOA	180 J N
5. --	Unknown_____	24.08	SVOA	280 J N
6. 203-64-5	4H-Cyclopenta [def] phenant	24.32	SVOA	170 J N
7. --	Unknown_____	24.60	SVOA	410 J N
8. 57-10-3	Hexadecanoic_acid_____	24.87	SVOA	480 J N
9. --	Unknown_____	25.37	SVOA	180 J N
10. --	Unknown_____	27.02	SVOA	280 J N
11. 57-11-4	Octadecanoic_acid_____	27.23	SVOA	170 J N
12. --	Unknown_Alkyl_PNA_____	27.98	SVOA	320 J N
13. --	Unknown_____	30.00	SVOA	340 J N
14. --	Unknown_____	32.27	SVOA	160 J N
15. ---	Unknown_PNA + C.E._____	32.47	SVOA	220 J N
16. --	Unknown_Aldehyde_____	34.10	SVOA	560 J N
17. --	Unknown_Aldehyde_____	35.90	SVOA	320 J N
18. 57-88-5	Cholesterol_____	36.78	SVOA	600 J N
19. --	Unknown_____	38.38	SVOA	2,200 J N
20. --	Unknown_____	38.60	SVOA	340 J N

FORM-1-B

1213  
JMB  
11/23/98  
10440



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971K

LIMS ID: 97-18035

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/19/97

Sample No: 9739 4711

WR-SD - SD093-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.5%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U J
106-44-5	4-Methylphenol	580
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U J
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U J
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U J
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00441

1267

JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971K

LIMS ID: 97-18035

Matrix: Sediment

Data Release Authorized: *SMB*

Reported: 11/19/97

Sample No: 9739 4711

WR-SD-SD 093-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.5%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U <i>J</i>
85-01-8	Phenanthrene	43
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	94
129-00-0	Pyrene	67
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	37
117-81-7	bis(2-Ethylhexyl)phthalate	200
218-01-9	Chrysene	59
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	46
207-08-9	Benzo(k)fluoranthene	37
50-32-8	Benzo(a)pyrene	42
193-39-5	Indeno(1,2,3-cd)pyrene	33
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	32

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.9%	d5-Phenol	57.5%
2-Fluorobiphenyl	63.0%	2-Fluorophenol	52.2%
d14-p-Terphenyl	68.8%	2,4,6-Tribromophenol	67.1%
d4-1,2-Dichlorobenzene	37.9%	d4-2-Chlorophenol	52.5%

FORM-1

00142

1268 *JMB*  
*1/23/99*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4711  
WR-SD - SD 093-0000  
Lab Sample ID: T971K QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18035 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/22/97  
Date Received: 09/27/97  
Data Release Authorized: *MB*  
Reported: 11/19/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.70	SVOA	600 JN
2. --	Unknown_____	9.05	SVOA	680 JN
3. 103-82-2	Benzeneacetic_acid_____	14.52	SVOA	1,500 JN
4. 544-63-8	Tetradecanoic_acid_____	22.35	SVOA	250 JN
5. 1002-84-2	Pentadecanoic_acid_____	23.23	SVOA	530 JN
6. --	Unknown_____	23.63	SVOA	360 JN
7. --	Unknown_____	23.88	SVOA	280 JN
8. --	Unknown_Organic_Acid_____	24.52	SVOA	270 JN
9. 2091-29-4	9-Hexadecenoic_acid_____	24.82	SVOA	1,900 JN
10. 57-10-3	Hexadecanoic_acid_____	25.08	SVOA	1,400 JN
11. 506-12-7	Heptadecanoic_acid_____	26.20	SVOA	230 JN
12. 112-80-1	Oleic_Acid_____	27.22	SVOA	1,000 JN
13. 57-11-4	Octadecanoic_acid_____	27.42	SVOA	280 JN
14. 112-85-6	Docosanoic_acid_____	31.72	SVOA	320 JN
15. --	Unknown_____	32.43	SVOA	320 JN
16. --	Unknown_____	32.63	SVOA	400 JN
17. --	Unknown_Aldehyde_____	34.25	SVOA	1,100 JN
18. --	Unknown_Aldehyde_____	36.07	SVOA	490 JN
19. 57-88-5	Cholesterol_____	36.95	SVOA	1,800 JN
20. 83-47-6	.gamma.-Sitosterol_____	38.48	SVOA	4,400 JN

FORM-1-B

03143

1269 *JMB*  
*1/23/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971L

LIMS ID: 97-18036

Matrix: Sediment

Data Release Authorized: *MR*

Reported: 11/19/97

Sample No: 9739 4712

WR-SD-SDC92-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 24.2%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	38
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	94 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	56 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	42
106-47-8	4-Chloroaniline	56 U
87-68-3	Hexachlorobutadiene	270
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	94 U
88-06-2	2,4,6-Trichlorophenol	94 U
95-95-4	2,4,5-Trichlorophenol	94 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	94 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	26
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	94 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	94 U

FORM-1

00144

1318 *JMK*  
*1/23/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971L

LIMS ID: 97-18036

Matrix: Sediment

Data Release Authorized: *EMP*

Reported: 11/19/97

Sample No: 9739 4712

WR-SD- SD092-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/03/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 53.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 24.2%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	94 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	22
100-01-6	4-Nitroaniline	94 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	94 U
85-01-8	Phenanthrene	180
86-74-8	Carbazole	19 U
120-12-7	Anthracene	24
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	300
129-00-0	Pyrene	300
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	94 U
56-55-3	Benzo(a)anthracene	120
117-81-7	bis(2-Ethylhexyl)phthalate	21
218-01-9	Chrysene	170
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	150
207-08-9	Benzo(k)fluoranthene	110
50-32-8	Benzo(a)pyrene	150
193-39-5	Indeno(1,2,3-cd)pyrene	120
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	120

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.4%	d5-Phenol	51.0%
2-Fluorobiphenyl	57.4%	2-Fluorophenol	44.3%
d14-p-Terphenyl	67.2%	2,4,6-Tribromophenol	69.8%
d4-1,2-Dichlorobenzene	44.3%	d4-2-Chlorophenol	48.1%

FORM-1

09445

1319 JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4712  
WR-SD-SD092-0000  
Lab Sample ID: T971L QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18036 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/22/97  
Date Received: 09/27/97  
Data Release Authorized: *BNP*  
Reported: 11/19/97

Date Analyzed: 11/03/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown	19.17	SVOA	130 J N
2. --	Unknown_Alkyl_PNA	24.25	SVOA	79 J N
3. --	Unknown_PNA	24.47	SVOA	130 J N
4. --	Unknown	24.70	SVOA	150 J N
5. 544-63-8	Tetradecanoic_acid	24.95	SVOA	230 J N
6. --	Naphthalene,_Phenyl_Iso_+	25.17	SVOA	84 J N
7. --	Unknown	25.75	SVOA	89 J N
8. 10544-50-0	Sulfur,_mol._(S8)	26.00	SVOA	160 J N
9. --	Unknown	26.73	SVOA	99 J N
10. --	Unknown_Chloro_Aro	27.40	SVOA	140 J N
11. --	Unknown_Chloro_Aro	27.95	SVOA	180 J N
12. --	Unknown_PNA	28.17	SVOA	1,200 J N
13. --	Unknown_PNA_+ C.E.	28.33	SVOA	160 J N
14. --	Unknown_Chloro_Aro	28.75	SVOA	360 J N
15. --	Unknown_Chloro_Aro_+ C.E.	29.62	SVOA	190 J N
16. 112-85-6	Docosanoic_acid	31.73	SVOA	760 J N
17. --	Unknown_Acid_Ester	31.95	SVOA	320 J N
18. --	Unknown	32.95	SVOA	610 J N
19. --	Unknown	33.70	SVOA	490 J N
20. --	Unknown	35.75	SVOA	72 J N

FORM-1-B

00146

JMB  
1320 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971M

LIMS ID: 97-18037

Matrix: Sediment

Data Release Authorized: *BWP*

Reported: 11/19/97

Sample No: 9739 4713

WR-SD- SD 092-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 22.3%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	40 U <i>J</i>
67-72-1	Hexachloroethane	37 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	38
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	190
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	34
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

90147

1373

*JMB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971M

LIMS ID: 97-18037

Matrix: Sediment

Data Release Authorized: *CHP*

Reported: 11/19/97

Sample No: 9739 4713

WR-SD- SD092-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 22.3%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20
100-01-6	4-Nitroaniline	-99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	180
86-74-8	Carbazole	20 U
120-12-7	Anthracene	35
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	320
129-00-0	Pyrene	360
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	150
117-81-7	bis(2-Ethylhexyl)phthalate	32
218-01-9	Chrysene	220
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	180
207-08-9	Benzo(k)fluoranthene	150
50-32-8	Benzo(a)pyrene	200
193-39-5	Indeno(1,2,3-cd)pyrene	150
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	160

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	63.2%	d5-Phenol	63.7%
2-Fluorobiphenyl	69.0%	2-Fluorophenol	55.6%
d14-p-Terphenyl	64.7%	2,4,6-Tribromophenol	65.2%
d4-1,2-Dichlorobenzene	58.2%	d4-2-Chlorophenol	59.2%

FORM-1

30448

JMB  
123/98  
1374



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4713

WR-SD- SD092-1000

Lab Sample ID: T971M  
LIMS ID: 97-18037  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *BND*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown	20.03	SVOA	240 JN
2.	-- Unknown	21.42	SVOA	240 JN
3.	-- Unknown_PNA+_C.E.	24.53	SVOA	180 JN
4.	57-10-3 Hexadecanoic acid	25.00	SVOA	320 JN
5.	10544-50-0 Sulfur, mol. (S8)	26.12	SVOA	480 JN
6.	-- Unknown	26.80	SVOA	240 JN
7.	112-80-1 Oleic Acid	27.17	SVOA	280 JN
8.	-- Unknown_Chloro_Aro+_C.E.	27.48	SVOA	230 JN
9.	-- Unknown_Chloro_Aro	28.02	SVOA	180 JN
10.	-- Unknown_Alkyl_Aromatic	28.25	SVOA	2,000 JN
11.	-- Unknown_PNA+_C.E.	28.40	SVOA	160 JN
12.	-- Unknown_Chloro_Aro	28.82	SVOA	390 JN
13.	-- Unknown_Chloro_Aro+_C.E.	29.68	SVOA	410 JN
14.	-- Unknown_Alcohol	31.02	SVOA	1,700 JN
15.	112-85-6 Docosanoic acid	31.82	SVOA	1,300 JN
16.	-- Unknown_Acid_Ester	32.02	SVOA	320 JN
17.	-- Unknown	33.03	SVOA	1,600 JN
18.	-- Unknown_Organic_Acid	33.80	SVOA	1,600 JN
19.	-- Unknown_PNA	34.72	SVOA	240 JN
20.	83-47-6 .gamma.-Sitosterol	38.52	SVOA	690 JN

FORM-1-B  
00149

*JMB*  
1/23/98

1375



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971N

LIMS ID: 97-18038

Matrix: Sediment

Data Release Authorized: *GMB*

Reported: 11/19/97

Sample No: 9739 4714

WR-SD- SD097-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 7.0

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	29
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U <i>J</i>
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00450

*JMB*  
11/23/98  
1428



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971N

LIMS ID: 97-18038

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/19/97

Sample No: 9739 4714

WR-SD- SD097- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 7.0

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	19 J
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	87
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	180
206-44-0	Fluoranthene	110
129-00-0	Pyrene	130
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	49
117-81-7	bis(2-Ethylhexyl)phthalate	440
218-01-9	Chrysene	73
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	60
207-08-9	Benzo(k)fluoranthene	41
50-32-8	Benzo(a)pyrene	56
193-39-5	Indeno(1,2,3-cd)pyrene	43
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	50

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.9%	d5-Phenol	65.7%
2-Fluorobiphenyl	67.9%	2-Fluorophenol	54.0%
d14-p-Terphenyl	72.0%	2,4,6-Tribromophenol	71.1%
d4-1,2-Dichlorobenzene	49.8%	d4-2-Chlorophenol	58.6%

FORM-1

00451

*JMB*  
11/23/98  
1429



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4714

WR-SD-SD097-0000

Lab Sample ID: T971N  
LIMS ID: 97-18038  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *MP*

Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	5.97	SVOA	280 JN
2. 103-82-2	Benzeneacetic_acid_____	14.32	SVOA	160 JN
3. --	Unknown_PNA+_C.E._____	19.50	SVOA	100 JN
4. 544-63-8	Tetradecanoic_acid_____	22.35	SVOA	72 JN
5. --	Unknown_Organic_Acid_____	23.22	SVOA	110 JN
6. --	Unknown_____	23.70	SVOA	130 JN
7. --	Unknown_____	23.93	SVOA	84 JN
8. --	Unknown_____	24.52	SVOA	75 JN
9. 2091-29-4	9-Hexadecenoic_acid_____	24.80	SVOA	450 JN
10. --	Unknown_____	25.82	SVOA	96 JN
11. 112-80-1	Oleic_Acid_____	27.17	SVOA	280 JN
12. 57-11-4	Octadecanoic_acid_____	27.45	SVOA	250 JN
13. --	Unknown_Chloro_Aro_____	28.00	SVOA	85 JN
14. --	Unknown_Alkyl_PNA_____	28.20	SVOA	170 JN
15. --	Unknown_Chloro_Aro_____	28.82	SVOA	690 JN
16. --	Unknown_Chloro_Aro_____	29.73	SVOA	1,600 JN
17. --	Unknown_____	30.30	SVOA	60 JN
18. 112-85-6	Docosanoic_acid_____	31.77	SVOA	120 JN
19. --	Unknown_____	34.25	SVOA	290 JN
20. 57-88-5	Cholesterol_____	37.02	SVOA	440 JN

FORM-1-B

06452

JMB  
11/23/96  
1430



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T9710

LIMS ID: 97-18039

Matrix: Sediment

Data Release Authorized: *BBP*

Reported: 11/19/97

Sample No: 9739 4715

WR-SD-SD100-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.8%

pH: 7.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	250
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U <i>J</i>
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00453

*JMB*  
11/23/98  
1482



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T9710

LIMS ID: 97-18039

Matrix: Sediment

Data Release Authorized: *AMP*

Reported: 11/19/97

Sample No: 9739 4715

WR-SD - SD100 - 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 35.8%

pH: 7.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	39
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	59
129-00-0	Pyrene	72
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	28
117-81-7	bis(2-Ethylhexyl)phthalate	68
218-01-9	Chrysene	40
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	30
207-08-9	Benzo(k)fluoranthene	27
50-32-8	Benzo(a)pyrene	36
193-39-5	Indeno(1,2,3-cd)pyrene	31
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	33

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	63.4%	d5-Phenol	70.3%
2-Fluorobiphenyl	63.6%	2-Fluorophenol	68.0%
d14-p-Terphenyl	70.6%	2,4,6-Tribromophenol	70.3%
d4-1,2-Dichlorobenzene	59.5%	d4-2-Chlorophenol	66.8%

FORM-1

00451

JMB  
10/23/98  
1483



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4715

WR-SD-SD100-0000

Lab Sample ID: T9710  
LIMS ID: 97-18039  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *DWA*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.20	SVOA	490 JN
2. 103-82-2	Benzeneacetic_acid_____	14.42	SVOA	380 JN
3. 501-52-0	Benzeneopropanoic_acid_____	15.87	SVOA	210 JN
4. 544-63-8	Tetradecanoic_acid_____	22.37	SVOA	130 JN
5. --	Unknown_____	23.27	SVOA	270 JN
6. --	Unknown_Organic_Acid_____	23.72	SVOA	120 JN
7. --	Unknown_____	23.93	SVOA	100 JN
8. --	Unknown_Organic_Acid_____	24.53	SVOA	180 JN
9. 2091-29-4	9-Hexadecenoic_acid_____	24.83	SVOA	810 JN
10. 57-10-3	Hexadecanoic_acid_____	25.12	SVOA	1,200 JN
11. --	Unknown_____	25.58	SVOA	180 JN
12. --	Unknown_Organic_Acid_____	25.82	SVOA	110 JN
13. 7704-34-9	Sulfur_____	26.12	SVOA	410 JN
14. --	Unknown_____	26.80	SVOA	210 JN
15. --	Unknown_Alkyl_PNA_____	28.20	SVOA	180 JN
16. --	Unknown_Chloro_Aro_+_C.E.	29.68	SVOA	170 JN
17. 112-85-6	Docosanoic_acid_____	31.77	SVOA	190 JN
18. --	Unknown_____	36.68	SVOA	240 JN
19. 57-88-5	Cholesterol_____	37.02	SVOA	500 JN
20. 83-47-6	.gamma.-Sitosterol_____	38.55	SVOA	2,600 JN

FORM-1-B

00455

JMB 1484  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971P

LIMS ID: 97-18040

Matrix: Sediment

Data Release Authorized: *BMA*

Reported: 11/19/97

Sample No: 9739 4716

WR-SD - SD106-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 6.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	260
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

99456

*JMB*  
*1123198*  
1533



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971P

LIMS ID: 97-18040

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/19/97

Sample No: 9739 4716

WR-SD- SD106-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.8%

pH: 6.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	23
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	28
129-00-0	Pyrene	34
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	100
218-01-9	Chrysene	24
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	19 J
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	48.8%	d5-Phenol	51.9%
2-Fluorobiphenyl	50.8%	2-Fluorophenol	42.0%
d14-p-Terphenyl	61.0%	2,4,6-Tribromophenol	61.2%
d4-1,2-Dichlorobenzene	39.2%	d4-2-Chlorophenol	45.7%

FORM-1

00457

1534

*JMB*  
*1/23/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4716

WR-SD-SD106-0000

Lab Sample ID: T971P

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18040

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *AND*

Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl-	6.33	SVOA	530 JN
2. 103-82-2	Benzeneacetic_acid_____	14.45	SVOA	510 JN
3. 544-63-8	Tetradecanoic_acid_____	22.42	SVOA	210 JN
4. 1002-84-2	Pentadecanoic_acid_____	23.30	SVOA	460 JN
5. --	Unknown_____	23.43	SVOA	420 J N
6. --	Unknown_____	23.75	SVOA	240 J N
7. --	Unknown_____	23.95	SVOA	260 J N
8. 57-10-3	Hexadecanoic_acid_____	24.58	SVOA	260 JN
9. 2091-29-4	9-Hexadecenoic_acid_____	24.87	SVOA	1,500 JN
10. 57-10-3	Hexadecanoic_acid_____	25.15	SVOA	1,200 JN
11. --	Unknown_____	25.62	SVOA	280 J N
12. 10544-50-0	Sulfur,_mol._(S8)_____	26.12	SVOA	410 JN
13. 112-80-1	Oleic_Acid_____	27.30	SVOA	1,600 JN
14. 544-63-8	Tetradecanoic_acid_____	27.48	SVOA	350 JN
15. --	Unknown_PNA + C.E._____	32.72	SVOA	240 J N
16. --	Unknown_Aldehyde_____	34.32	SVOA	430 J N
17. 57-88-5	Cholesterol_____	37.03	SVOA	1,000 JN
18. --	Unknown_____	37.40	SVOA	550 J N
19. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta	37.85	SVOA	520 JN
20. 83-47-6	.gamma.-Sitosterol_____	38.57	SVOA	3,400 JN

FORM-1-B

50158

JMB  
1/23/98  
1535



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971Q

LIMS ID: 97-18041

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 11/19/97

Sample No: 9739 4718

WR-SD - SD108-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.6%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	480
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

30459

JMB  
1/23/98  
1578



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971Q

LIMS ID: 97-18041

Matrix: Sediment

Data Release Authorized: *ON*

Reported: 11/19/97

Sample No: 9739 4718

WR-SD-SD108-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	22
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	28
129-00-0	Pyrene	34
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	190
218-01-9	Chrysene	21
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	55.7%	d5-Phenol	51.4%
2-Fluorobiphenyl	54.8%	2-Fluorophenol	46.7%
d14-p-Terphenyl	57.0%	2,4,6-Tribromophenol	51.0%
d4-1,2-Dichlorobenzene	44.2%	d4-2-Chlorophenol	47.7%

FORM-1

00160

JMB  
123198  
1579



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4718

WR-SD-SD108-0000

Lab Sample ID: T971Q

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18041

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *ONP*

Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.55	SVOA	860 JN
2. --	Unknown_____	9.15	SVOA	1,000 JN
3. 103-82-2	Benzeneacetic_acid_____	14.55	SVOA	900 JN
4. 544-63-8	Tetradecanoic_acid_____	22.43	SVOA	310 JN
5. 1002-84-2	Pentadecanoic_acid_____	23.32	SVOA	620 JN
6. --	Unknown_____	23.47	SVOA	590 JN
7. --	Unknown_Organic_Acid_____	24.60	SVOA	290 JN
8. 2091-29-4	9-Hexadecenoic_acid_____	24.92	SVOA	1,400 JN
9. 57-10-3	Hexadecanoic_acid_____	25.18	SVOA	1,700 JN
10. --	Unknown_____	25.65	SVOA	390 JN
11. 10544-50-0	Sulfur, mol. (S8)_____	26.12	SVOA	390 JN
12. 112-80-1	Oleic_Acid_____	27.28	SVOA	1,900 JN
13. 57-11-4	Octadecanoic_acid_____	27.52	SVOA	400 JN
14. --	Unknown_Alkyl_PNA_____	28.22	SVOA	270 JN
15. --	Unknown_____	34.27	SVOA	670 JN
16. --	Unknown_____	36.80	SVOA	300 JN
17. --	Coprostan-3-one_____	37.02	SVOA	570 JN
18. --	Unknown_____	37.40	SVOA	400 JN
19. --	Unknown_____	38.50	SVOA	800 JN
20. --	Unknown_____	38.62	SVOA	790 JN

FORM-1-B

00461

JMB  
123/98  
1580



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971R

LIMS ID: 97-18042

Matrix: Sediment

Data Release Authorized: *OMB*

Reported: 11/19/97

Sample No: 9739 4719

WR-SD- SD111-0000

OC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.7%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	480
621-64-7	N-Nitroso-Di-N-Propylamine	40 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00462

*JMB*  
1/23/98

1622



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971R

LIMS ID: 97-18042

Matrix: Sediment

Data Release Authorized: *out*

Reported: 11/19/97

Sample No: 9739 4719

WR-SD - SD111-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	29
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	44
129-00-0	Pyrene	48
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	21
117-81-7	bis(2-Ethylhexyl)phthalate	140
218-01-9	Chrysene	31
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	19 J
207-08-9	Benzo(k)fluoranthene	20
50-32-8	Benzo(a)pyrene	26
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	19 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	57.5%	d5-Phenol	58.6%
2-Fluorobiphenyl	42.5%	2-Fluorophenol	47.6%
d14-p-Terphenyl	53.6%	2,4,6-Tribromophenol	46.6%
d4-1,2-Dichlorobenzene	45.3%	d4-2-Chlorophenol	48.0%

FORM-1

00463

*JMB*  
1/23/98  
1623



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4719  
WR-SD- SD111-0000  
Lab Sample ID: T971R QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18042 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/22/97  
Date Received: 09/27/97  
Data Release Authorized: *JMB*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown	9.13	SVOA	1,000 JN
2. 103-82-2	Benzeneacetic acid	14.53	SVOA	1,000 JN
3. 544-63-8	Tetradecanoic acid	22.43	SVOA	310 JN
4. 1002-84-2	Pentadecanoic acid	23.33	SVOA	670 JN
5. --	Unknown	23.47	SVOA	670 JN
6. --	Unknown	24.92	SVOA	2,100 JN
7. 57-10-3	Hexadecanoic acid	25.18	SVOA	1,700 JN
8. 10544-50-0	Sulfur, mol. (S8)	26.13	SVOA	530 JN
9. --	Unknown	26.82	SVOA	380 JN
10. 112-80-1	Oleic Acid	27.32	SVOA	1,900 JN
11. 57-11-4	Octadecanoic acid	27.50	SVOA	500 JN
12. --	Unknown_Alkyl_PNA	28.22	SVOA	340 JN
13. --	Unknown	32.52	SVOA	340 JN
14. --	Unknown_PNA + C.E.	32.73	SVOA	360 JN
15. --	Unknown	34.27	SVOA	760 JN
16. --	Unknown	36.72	SVOA	490 JN
17. 57-88-5	Cholesterol	37.05	SVOA	1,000 JN
18. --	Unknown	37.40	SVOA	960 JN
19. 4651-51-8	Ergost-5-en-3-ol, -(3. $\beta$ )	37.87	SVOA	400 JN
20. --	Unknown	38.63	SVOA	2,800 JN

FORM-1-B

06464

JMB  
1/23/98  
1624



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971S

LIMS ID: 97-18043

Matrix: Sediment

Data Release Authorized: *GW*

Reported: 11/19/97

Sample No: 9739 4720

WR-SD - SD116-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	490
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

50465

1072 JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971S

LIMS ID: 97-18043

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/19/97

Sample No: 9739 4720

WR-SD- SD116 -0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	27
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	30
129-00-0	Pyrene	35
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	20
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	20 J
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.5%	d5-Phenol	53.0%
2-Fluorobiphenyl	51.1%	2-Fluorophenol	48.5%
d14-p-Terphenyl	58.1%	2,4,6-Tribromophenol	55.7%
d4-1,2-Dichlorobenzene	42.0%	d4-2-Chlorophenol	50.1%

FORM-1

00466

JMB  
1/28/98  
1673



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4720

WR-SD-SD16-0000

Lab Sample ID: T971S  
LIMS ID: 97-18043  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *ONB*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid	6.52	SVOA	1,000 JN
2. 103-82-2	Benzeneacetic_acid	14.53	SVOA	1,100 JN
3. 544-63-8	Tetradecanoic_acid	22.42	SVOA	340 JN
4. 1002-84-2	Pentadecanoic_acid	23.32	SVOA	660 JN
5. --	Unknown_Organic_Acid	23.43	SVOA	600 JN
6. --	Unknown	23.70	SVOA	290 JN
7. 57-10-3	Hexadecanoic_acid	24.58	SVOA	260 JN
8. --	Unknown	24.88	SVOA	2,200 JN
9. --	Unknown	25.17	SVOA	1,800 JN
10. --	Unknown	25.62	SVOA	320 JN
11. 112-80-1	Oleic_Acid	27.30	SVOA	1,700 JN
12. 57-11-4	Octadecanoic_acid	27.48	SVOA	410 JN
13. --	Unknown_Alkyl_PNA	28.22	SVOA	310 JN
14. --	Unknown_PNA + C.E.	32.70	SVOA	230 JN
15. --	Unknown	34.25	SVOA	710 JN
16. --	Unknown	36.72	SVOA	480 JN
17. 57-88-5	Cholesterol	37.05	SVOA	1,000 JN
18. --	Coprostan-3-one	37.38	SVOA	550 JN
19. 4651-51-8	Ergost-5-en-3-ol, -(3. $\beta$ )	37.87	SVOA	430 JN
20. --	Unknown	38.62	SVOA	2,300 JN

FORM-1-B

00467

JMB  
123/98  
1674



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971T

LIMS ID: 97-18044

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/19/97

Sample No: 9739 4722

WR-SD-SD119-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	500
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U <i>J</i>
88-74-4	2-Nitroaniline	97 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	97 U <i>J</i>
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00468

1717 1/23/98  
*MB*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971T

LIMS ID: 97-18044

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/19/97

Sample No: 9739 4722

WR-SD- SD119- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	28
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	39
129-00-0	Pyrene	54
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	19 J
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	28
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	22
207-08-9	Benzo(k)fluoranthene	18 J
50-32-8	Benzo(a)pyrene	23
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	22

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	52.3%	d5-Phenol	51.6%
2-Fluorobiphenyl	59.1%	2-Fluorophenol	47.7%
d14-p-Terphenyl	64.8%	2,4,6-Tribromophenol	65.2%
d4-1,2-Dichlorobenzene	40.8%	d4-2-Chlorophenol	49.1%

FORM-1

69469

*MB*  
1/23/98  
1718



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4722

WR-SD-SD119-0000

Lab Sample ID: T971T  
LIMS ID: 97-18044  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *JNB*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.73	SVOA	640 JN
2. 103-82-2	Benzeneacetic_acid_____	14.57	SVOA	1,300 JN
3. 544-63-8	Tetradecanoic_acid_____	22.43	SVOA	360 JN
4. 1002-84-2	Pentadecanoic_acid_____	23.32	SVOA	700 JN
5. --	Unknown_____	23.45	SVOA	690 JN
6. --	Unknown_Organic_Acid_____	23.77	SVOA	290 JN
7. 87-51-4	Indoleacetic_acid_____	24.25	SVOA	200 JN
8. --	Unknown_Organic_Acid_____	24.58	SVOA	300 JN
9. --	Unknown_____	24.90	SVOA	2,500 JN
10. 57-10-3	Hexadecanoic_acid_____	25.18	SVQA	1,900 JN
11. --	Unknown_____	26.15	SVOA	330 JN
12. 112-80-1	Oleic_Acid_____	27.32	SVOA	1,900 JN
13. 57-11-4	Octadecanoic_acid_____	27.50	SVOA	500 JN
14. --	Unknown_Alkyl_PNA_____	28.22	SVOA	240 JN
15. --	Unknown_____	32.52	SVOA	220 JN
16. --	Unknown_PNA_+ C.E._____	32.72	SVOA	260 JN
17. --	Unknown_____	36.73	SVOA	430 JN
18. 57-88-5	Cholesterol_____	37.05	SVOA	960 JN
19. --	Unknown_____	37.40	SVOA	790 JN
20. --	Unknown_____	38.62	SVOA	2,300 JN

FORM-1-B

00470

1719 *JMC*  
1/23/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971U

LIMS ID: 97-18045

Matrix: Sediment

Data Release Authorized: *CRW*

Reported: 11/19/97

Sample No: 9739 4723

WR-SD- SD122- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.5%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	690
621-64-7	N-Nitroso-Di-N-Propylamine	38 U <i>J</i>
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	95 U <i>J</i>
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

90471

1767 *JME*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971U

LIMS ID: 97-18045

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/19/97

Sample No: 9739 4723

WR-SD- SD122- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.5%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	31
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	46
129-00-0	Pyrene	53
85-68-7	Butylbenzylphthalate	24
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	19
117-81-7	bis(2-Ethylhexyl)phthalate	250
218-01-9	Chrysene	30
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	26
207-08-9	Benzo(k)fluoranthene	20
50-32-8	Benzo(a)pyrene	25
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	18 J

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.0%	d5-Phenol	52.4%
2-Fluorobiphenyl	56.2%	2-Fluorophenol	47.9%
d14-p-Terphenyl	62.9%	2,4,6-Tribromophenol	62.9%
d4-1,2-Dichlorobenzene	44.8%	d4-2-Chlorophenol	46.7%

FORM-1

90472

1768 *JMB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4723

WR-SD-SD122-0000

Lab Sample ID: T971U

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18045

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *BOP*

Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	6.98	SVOA	1,300 JN
2. 103-82-2	Benzeneacetic_acid	14.65	SVOA	1,500 JN
3. 544-63-8	Tetradecanoic_acid	22.47	SVOA	390 JN
4. 1002-84-2	Pentadecanoic_acid	23.37	SVOA	820 JN
5. --	Unknown_Organic_Acid	23.50	SVOA	690 JN
6. --	Unknown	23.95	SVOA	240 J N
7. --	Unknown_Organic_Acid	24.65	SVOA	250 J N
8. --	Unknown	24.97	SVOA	2,000 J N
9. 57-10-3	Hexadecanoic_acid	25.23	SVOA	1,900 JN
10. --	Unknown	25.68	SVOA	440 J N
11. 10544-50-0	Sulfur,_mol._(S8)	26.13	SVOA	620 JN
12. --	Unknown	26.83	SVOA	230 J N
13. 112-80-1	Oleic_Acid	27.37	SVOA	2,400 JN
14. 57-11-4	Octadecanoic_acid	27.55	SVOA	570 JN
15. --	Unknown_Alkyl_PNA	28.23	SVOA	300 J N
16. --	Unknown	34.28	SVOA	820 J N
17. --	Unknown	36.75	SVOA	520 J N
18. 57-88-5	Cholesterol	37.08	SVOA	710 JN
19. --	Unknown	37.42	SVOA	800 J N
20. --	Unknown	38.65	SVOA	2,600 J N

FORM-1-B

90473

1769 *JM*  
*1/23/*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971V

LIMS ID: 97-18046

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/19/97

Sample No: 9739 4724

WR-SD- SD121- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.9%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	460
621-64-7	N-Nitroso-Di-N-Propylamine	39 U <i>J</i>
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U <i>J</i>
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	99 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00474

1820

*JMB*  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971V

LIMS ID: 97-18046

Matrix: Sediment

Data Release Authorized: *awb*

Reported: 11/19/97

Sample No: 9739 4724

WR-SD- SD121 - 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/04/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.9%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	22
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	30
129-00-0	Pyrene	36
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	110
218-01-9	Chrysene	22
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	22
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.8%	d5-Phenol	61.5%
2-Fluorobiphenyl	61.2%	2-Fluorophenol	60.3%
d14-p-Terphenyl	70.2%	2,4,6-Tribromophenol	64.2%
d4-1,2-Dichlorobenzene	53.8%	d4-2-Chlorophenol	62.1%

FORM-1

00475

JMB  
1/23/98  
1821



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4724

WR-SD- SD121-0000

Lab Sample ID: T971V  
LIMS ID: 97-18046  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *DRB*  
Reported: 11/19/97

Date Analyzed: 11/04/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.53	SVOA	460 JNB
2. 103-82-2	Benzeneacetic acid	14.55	SVOA	870 JN
3. 544-63-8	Tetradecanoic acid	22.42	SVOA	250 JN
4. 1002-84-2	Pentadecanoic acid	23.30	SVOA	400 JN
5. --	Unknown_Organic_Acid	23.42	SVOA	360 JN
6. --	Unknown_Organic_Acid	24.60	SVOA	140 JN
7. --	Unknown	24.87	SVOA	1,200 JN
8. 57-10-3	Hexadecanoic acid	25.12	SVOA	840 JN
9. 10544-50-0	Sulfur, mol. (S8)	26.10	SVOA	210 JN
10. 112-80-1	Oleic Acid	27.28	SVOA	800 JN
11. 57-11-4	Octadecanoic acid	27.48	SVOA	250 JN
12. --	Unknown_Alkyl_PNA	28.22	SVOA	180 JN
13. --	Unknown	32.40	SVOA	160 J N
14. --	Unknown_PNA + C.E.	32.72	SVOA	160 J N
15. --	Unknown	33.25	SVOA	330 J N
16. --	Unknown	34.32	SVOA	340 J N
17. --	Unknown	36.78	SVOA	300 J N
18. --	Unknown_Sterol	37.02	SVOA	200 J N
19. --	Coprostan-3-one	37.40	SVOA	340 J N
20. --	Unknown	38.62	SVOA	1,700 J N

FORM-1-B

00176

1822

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971W

LIMS ID: 97-18047

Matrix: Sediment

Data Release Authorized: *GBB*

Reported: 11/20/97

Sample No: 9739 4725

WR-SD-SD129-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.9%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	1,100
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U <i>J</i>
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	62
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	26
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	33
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	20
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

60477

*JMB*  
11/23/98  
1864



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971W

LIMS ID: 97-18047

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/20/97

Sample No: 9739 4725

WR-SD- SD1Z9-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.9%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	38
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	250
86-74-8	Carbazole	25 <i>MN</i>
120-12-7	Anthracene	50
84-74-2	Di-n-Butylphthalate	51
206-44-0	Fluoranthene	570
129-00-0	Pyrene	510
85-68-7	Butylbenzylphthalate	74
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	160
117-81-7	bis(2-Ethylhexyl)phthalate	760
218-01-9	Chrysene	320
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	230
207-08-9	Benzo(k)fluoranthene	180
50-32-8	Benzo(a)pyrene	210
193-39-5	Indeno(1,2,3-cd)pyrene	130
53-70-3	Dibenz(a,h)anthracene	34
191-24-2	Benzo(g,h,i)perylene	130

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	47.8%	d5-Phenol	52.9%
2-Fluorobiphenyl	47.1%	2-Fluorophenol	42.4%
d14-p-Terphenyl	57.0%	2,4,6-Tribromophenol	70.5%
d4-1,2-Dichlorobenzene	38.2%	d4-2-Chlorophenol	44.9%

FORM-1

00478

*JMB* 1865  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4725

WR-SD-SD129-0000

Lab Sample ID: T971W  
LIMS ID: 97-18047  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *bwp*  
Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.93	SVOA	1,600 JN
2. 103-82-2	Benzeneacetic_acid_____	14.60	SVOA	1,700 JN
3. 1002-84-2	Pentadecanoic_acid_____	23.30	SVOA	1,500 JN
4. --	Unknown_____	24.92	SVOA	6,000 JN
5. 57-10-3	Hexadecanoic_acid_____	25.18	SVOA	4,200 JN
6. --	Unknown_____	25.62	SVOA	1,100 JN
7. 10544-50-0	Sulfur,_mol._(S8)_____	26.08	SVOA	2,100 JN
8. 112-80-1	Oleic_Acid_____	27.23	SVOA	4,000 JN
9. 57-11-4	Octadecanoic_acid_____	27.47	SVOA	1,200 JN
10. --	Unknown_Alkyl_PNA_____	28.17	SVOA	1,300 JN
11. 112-85-6	Docosanoic_acid_____	31.77	SVOA	990 JN
12. --	Unknown_____	32.67	SVOA	820 JN
13. --	Unknown_____	34.22	SVOA	2,600 JN
14. --	Unknown_PNA+_C.E._____	34.67	SVOA	1,200 JN
15. --	Unknown_____	35.95	SVOA	1,100 JN
16. 57-88-5	Cholesterol_____	37.00	SVOA	2,300 JN
17. --	Unknown_____	37.07	SVOA	1,300 JN
18. --	Unknown_____	37.17	SVOA	1,100 JN
19. 83-47-6	.gamma.-Sitosterol_____	38.50	SVOA	6,400 JN
20. --	Unknown_____	38.80	SVOA	870 JN

FORM-1-B

00479

1566 JM  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971X

LIMS ID: 97-18048

Matrix: Sediment

Data Release Authorized: *BNP*

Reported: 11/20/97

Sample No: 9739 4726

WR-SD- SD134-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 59.9%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	55
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	780
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U <i>J</i>
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	23
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	21
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

09480

*JMB*  
1/23/98  
1924



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971X

LIMS ID: 97-18048

Matrix: Sediment

Data Release Authorized: *AM*

Reported: 11/20/97

Sample No: 9739 4726

WR-SD- SD134-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 59.9%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	26
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	200
86-74-8	Carbazole	20 U
120-12-7	Anthracene	47
84-74-2	Di-n-Butylphthalate	43 M/N
206-44-0	Fluoranthene	330
129-00-0	Pyrene	300
85-68-7	Butylbenzylphthalate	30
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	130
117-81-7	bis(2-Ethylhexyl)phthalate	1,300
218-01-9	Chrysene	200
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	140
207-08-9	Benzo(k)fluoranthene	130
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	84
53-70-3	Dibenz(a,h)anthracene	24
191-24-2	Benzo(g,h,i)perylene	59

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.3%	d5-Phenol	46.2%
2-Fluorobiphenyl	44.4%	2-Fluorophenol	38.6%
d14-p-Terphenyl	52.9%	2,4,6-Tribromophenol	54.1%
d4-1,2-Dichlorobenzene	38.2%	d4-2-Chlorophenol	42.5%

FORM-1

00181

JMB  
123198  
1925



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4726

WR-SD- SD134-0000

Lab Sample ID: T971X

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18048

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *PNB*

Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.43	SVOA	1,900 J N
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.83	SVOA	1,400 J N
3. 103-82-2	Benzeneacetic_acid_____	14.52	SVOA	1,200 J N
4. 544-63-8	Tetradecanoic_acid_____	22.40	SVOA	540 J N
5. 1002-84-2	Pentadecanoic_acid_____	23.28	SVOA	950 J N
6. --	Unknown_____	23.42	SVOA	770 J N
7. --	Unknown_____	23.63	SVOA	380 J N
8. --	Unknown_____	24.90	SVOA	3,300 J N
9. 57-10-3	Hexadecanoic_acid_____	25.15	SVOA	2,300 J N
10. --	Unknown_____	27.25	SVOA	1,700 J N
11. 57-11-4	Octadecanoic_acid_____	27.45	SVOA	520 J N
12. --	Unknown_____	28.12	SVOA	360 J N
13. --	Unknown_____	28.42	SVOA	390 J N
14. 506-30-9	Eicosanoic_acid_____	29.67	SVOA	320 J N
15. 112-85-6	Docosanoic_acid_____	31.75	SVOA	490 J N
16. --	Unknown_PNA+_C.E._____	32.67	SVOA	330 J N
17. --	Unknown_____	34.22	SVOA	1,100 J N
18. 57-88-5	Cholesterol_____	36.98	SVOA	1,500 J N
19. --	Sitosterol_Iso_____	38.48	SVOA	1,200 J N
20. --	Unknown_____	38.78	SVOA	420 J N

FORM-1-B

99482

JMB  
11/23/98  
1926



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971Y

LIMS ID: 97-18049

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/20/97

Sample No: 9739 4727

WR-SD- SD136-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 26.0%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	380
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

30433

1982 JMB 1/23/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971Y

LIMS ID: 97-18049

Matrix: Sediment

Data Release Authorized: *AP*

Reported: 11/20/97

Sample No: 9739 4727

WR-SD- SD136 - 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 26.0%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	110
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	240
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	62
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	69
117-81-7	bis(2-Ethylhexyl)phthalate	1,900 ± 2100 D
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	110
207-08-9	Benzo(k)fluoranthene	74
50-32-8	Benzo(a)pyrene	85
193-39-5	Indeno(1,2,3-cd)pyrene	48
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	49

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	53.0%	d5-Phenol	58.1%
2-Fluorobiphenyl	58.4%	2-Fluorophenol	52.6%
d14-p-Terphenyl	67.4%	2,4,6-Tribromophenol	79.2%
d4-1,2-Dichlorobenzene	48.0%	d4-2-Chlorophenol	53.4%

FORM-1

00434

JMB 1/23  
1983



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4727

WR-SD- SDi36-0000

Lab Sample ID: T971Y

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18049

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *ONB*

Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	21.70	SVOA	520 J N
2.	-- Unknown _____	22.00	SVOA	570 J N
3.	-- Unknown_Organic_Acid _____	22.37	SVOA	890 J N
4.	-- Unknown _____	23.23	SVOA	700 J N
5.	-- Unknown _____	23.37	SVOA	680 J N
6.	-- Unknown _____	23.67	SVOA	600 J N
7.	-- Unknown _____	24.83	SVOA	1,900 J N
8.	-- Unknown_Organic_Acid _____	25.13	SVOA	2,400 J N
9.	-- Unknown _____	26.77	SVOA	970 J N
10.	-- Unknown _____	27.22	SVOA	1,700 J N
11.	57-11-4 Octadecanoic_acid _____	27.48	SVOA	1,200 J N
12.	-- Unknown _____	28.15	SVOA	2,000 J N
13.	-- Unknown _____	29.42	SVOA	940 J N
14.	112-85-6 Docosanoic_acid _____	31.80	SVOA	770 J N
15.	-- Unknown _____	32.78	SVOA	3,100 J N
16.	-- Unknown _____	33.75	SVOA	560 J N
17.	-- Unknown _____	34.33	SVOA	1,100 J N
18.	-- Unknown _____	35.33	SVOA	840 J N
19.	-- Unknown _____	37.22	SVOA	980 J N
20.	-- Unknown_Sterol _____	38.50	SVOA	2,000 J N

FORM-1-B  
00435

1934  
JMB  
123



**ANALYTICAL  
RESOURCES  
INCORPORATED**

**ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS**

Page 1 of 2

Lab Sample ID: T971Y

LIMS ID: 97-18049

Matrix: Sediment

Data Release Authorized: *AWB*

Reported: 11/26/97

Sample No. 9739 4727

**DILUTION**

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:3

Percent Moisture: 26.0%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	58 U
111-44-4	Bis-(2-Chloroethyl) Ether	120 U
95-57-8	2-Chlorophenol	58 U
541-73-1	1,3-Dichlorobenzene	58 U
106-46-7	1,4-Dichlorobenzene	58 U
100-51-6	Benzyl Alcohol	58 U
95-50-1	1,2-Dichlorobenzene	58 U
95-48-7	2-Methylphenol	58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58 U
106-44-5	4-Methylphenol	340
621-64-7	N-Nitroso-Di-N-Propylamine	120 U
67-72-1	Hexachloroethane	58 U
98-95-3	Nitrobenzene	58 U
78-59-1	Isophorone	58 U
88-75-5	2-Nitrophenol	290 U
105-67-9	2,4-Dimethylphenol	58 U
65-85-0	Benzoic Acid	580 U
111-91-1	bis(2-Chloroethoxy) Methane	58 U
120-83-2	2,4-Dichlorophenol	170 U
120-82-1	1,2,4-Trichlorobenzene	58 U
91-20-3	Naphthalene	58 U
106-47-8	4-Chloroaniline	170 U
87-68-3	Hexachlorobutadiene	58 U
59-50-7	4-Chloro-3-methylphenol	120 U
91-57-6	2-Methylnaphthalene	58 U
77-47-4	Hexachlorocyclopentadiene	290 U
88-06-2	2,4,6-Trichlorophenol	290 U
95-95-4	2,4,5-Trichlorophenol	290 U
91-58-7	2-Chloronaphthalene	58 U
88-74-4	2-Nitroaniline	290 U
131-11-3	Dimethylphthalate	58 U
208-96-8	Acenaphthylene	58 U
99-09-2	3-Nitroaniline	350 U
83-32-9	Acenaphthene	58 U
51-28-5	2,4-Dinitrophenol	580 U
100-02-7	4-Nitrophenol	290 U
132-64-9	Dibenzofuran	58 U
606-20-2	2,6-Dinitrotoluene	290 U

FORM 1  
50186

2036

JMB  
12319

ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971Y

LIMS ID: 97-18049

Matrix: Sediment

Data Release Authorized: *MP*

Reported: 11/26/97



Sample No. 9739 4727

DILUTION

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:3  
Percent Moisture: 26.0%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	290 U
84-66-2	Diethylphthalate	58 U
7005-72-3	4-Chlorophenyl-phenylether	58 U
86-73-7	Fluorene	58 U
100-01-6	4-Nitroaniline	290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580 U
86-30-6	N-Nitrosodiphenylamine	58 U
101-55-3	4-Bromophenyl-phenylether	58 U
118-74-1	Hexachlorobenzene	58 U
87-86-5	Pentachlorophenol	290 U
85-01-8	Phenanthrene	140
86-74-8	Carbazole	58 U
120-12-7	Anthracene	58 U
84-74-2	Di-n-Butylphthalate	58 U
206-44-0	Fluoranthene	290
129-00-0	Pyrene	220
85-68-7	Butylbenzylphthalate	58
91-94-1	3,3'-Dichlorobenzidine	290 U
56-55-3	Benzo(a)anthracene	85
117-81-7	bis(2-Ethylhexyl)phthalate	2,100
218-01-9	Chrysene	140
117-84-0	Di-n-Octyl phthalate	58 U
205-99-2	Benzo(b)fluoranthene	110
207-08-9	Benzo(k)fluoranthene	91
50-32-8	Benzo(a)pyrene	87
193-39-5	Indeno(1,2,3-cd)pyrene	57 J
53-70-3	Dibenz(a,h)anthracene	58 U
191-24-2	Benzo(g,h,i)perylene	66

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	68.6%	d5-Phenol	58.1%
2-Fluorobiphenyl	77.8%	2-Fluorophenol	50.6%
d14-p-Terphenyl	73.2%	2,4,6-Tribromophenol	77.5%
d4-1,2-Dichlorobenzene	52.6%	d4-2-Chlorophenol	51.3%

FORM-1

00437

2037  
*MB*  
*12/97*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971Z

LIMS ID: 97-18050

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/20/97

Sample No: 9739 4728

WR-SD- SD139-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 63.3%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	1,400
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	22
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00438

JMB 12319  
2096



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971Z

LIMS ID: 97-18050

Matrix: Sediment

Data Release Authorized: *AM*

Reported: 11/20/97

Sample No: 9739 4728

WR-SD - SD139-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 63.3%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 J
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	120
86-74-8	Carbazole	19 U
120-12-7	Anthracene	45
84-74-2	Di-n-Butylphthalate	84 XN
206-44-0	Fluoranthene	250
129-00-0	Pyrene	370
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	63
117-81-7	bis(2-Ethylhexyl)phthalate	1,200
218-01-9	Chrysene	370
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	230
50-32-8	Benzo(a)pyrene	170
193-39-5	Indeno(1,2,3-cd)pyrene	80
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	91

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	38.5%	d5-Phenol	41.6%
2-Fluorobiphenyl	54.3%	2-Fluorophenol	35.1%
d14-p-Terphenyl	72.5%	2,4,6-Tribromophenol	76.1%
d4-1,2-Dichlorobenzene	30.3%	d4-2-Chlorophenol	38.2%

FORM-1

00439

JMB  
2097 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T971Z  
LIMS ID: 97-18050  
Matrix: Sediment

Sample No: 9739 4728  
WR-SD - SD139-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *OKB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Acid_Ester_____	6.25	SVOA	180 J N
2. 503-74-2	Butanoic_acid,_3-methyl_-	6.58	SVOA	930 J N
3. 116-53-0	Butanoic_acid,_2-methyl_-	6.97	SVOA	1,100 J N
4. --	Unknown_____	7.22	SVOA	390 J N
5. --	Unknown_____	8.77	SVOA	280 J N
6. 103-82-2	Benzeneacetic_acid_____	14.45	SVOA	2,100 J N
7. --	Unknown_____	16.78	SVOA	98 J N
8. --	Unknown_____	18.55	SVOA	84 J N
9. --	Phenol,_Tetramethylbu_Iso	19.75	SVOA	79 J N
10. --	Unknown_____	21.87	SVOA	110 J N
11. 544-63-8	Tetradecanoic_acid_____	22.03	SVOA	380 J N
12. --	Unknown_____	22.90	SVOA	74 J N
13. 5746-58-7	Tetradecanoic_acid,_12-me	23.03	SVOA	1,000 J N
14. --	Unknown_____	23.33	SVOA	660 J N
15. --	Unknown_____	23.55	SVOA	1,300 J N
16. --	Unknown_____	26.90	SVOA	300 J N
17. --	Unknown_____	29.82	SVOA	140 J N
18. --	Unknown_____	33.87	SVOA	420 J N
19. --	Unknown_____	36.68	SVOA	990 J N
20. --	Unknown_____	38.13	SVOA	1,100 J N



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BK

LIMS ID: 97-18086

Matrix: Sediment

Data Release Authorized: *BWP*

Reported: 11/24/97

Sample No: 9739 4770

WR-SD- SD143-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 39.0%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	290
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	36
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00491

2161  
JMB  
.123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BK

LIMS ID: 97-18086

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/24/97

Sample No: 9739 4770

*WR-SD - SD143-0000*

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 39.0%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	27
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	110
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	110
129-00-0	Pyrene	110
85-68-7	Butylbenzylphthalate	30
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	38
117-81-7	bis(2-Ethylhexyl)phthalate	640
218-01-9	Chrysene	68
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	64
207-08-9	Benzo(k)fluoranthene	37
50-32-8	Benzo(a)pyrene	55
193-39-5	Indeno(1,2,3-cd)pyrene	32
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	28

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.8%	d5-Phenol	60.5%
2-Fluorobiphenyl	86.2%	2-Fluorophenol	45.6%
d14-p-Terphenyl	78.4%	2,4,6-Tribromophenol	102%
d4-1,2-Dichlorobenzene	52.4%	d4-2-Chlorophenol	55.5%

FORM-1

00132

*JMB 123198  
2162*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4770

WR-SD- SD143-0000

Lab Sample ID: T971BK  
LIMS ID: 97-18086  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *own*

Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	5.47	SVOA	410 JN
2. --	Unknown_Organic_Acid_____	5.87	SVOA	470 JN
3. --	Unknown_Cycloalkane+_C.E	15.22	SVOA	220 JN
4. --	Naphthalene,_Dimethyl_Iso	16.55	SVOA	250 JN
5. --	Unknown_Cycloalkane+_C.E	16.98	SVOA	330 JN
6. --	Naphthalene,_Trimethyl_Is	18.67	SVOA	640 JN
7. --	Unknown_____	18.87	SVOA	350 JN
8. 1002-84-2	Pentadecanoic_acid_____	22.70	SVOA	560 JN
9. --	Unknown_____	22.82	SVOA	440 JN
10. --	Unknown_____	23.10	SVOA	320 JN
11. --	Unknown_____	24.25	SVOA	620 JN
12. 57-10-3	Hexadecanoic_acid_____	24.52	SVOA	850 JN
13. --	Unknown_____	26.18	SVOA	350 JN
14. --	Unknown_____	32.07	SVOA	1,100 JN
15. --	Unknown_____	35.52	SVOA	340 JN
16. --	Unknown_Sterol_____	35.82	SVOA	910 JN
17. --	Unknown_____	36.13	SVOA	400 JN
18. --	Unknown_____	37.98	SVOA	1,100 JN
19. --	Unknown_____	38.32	SVOA	1,100 JN
20. --	Unknown_____	38.57	SVOA	440 JN

FORM-1-B

90493

JMB  
123198  
2163



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BL

LIMS ID: 97-18087

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/24/97

Sample No: 9739 4771

WR-SD-SD144-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.8%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	1,200
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1  
00191

*jmB*  
1231  
2219



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BL

LIMS ID: 97-18087

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/24/97

Sample No: 9739 4771

WR-SD- SD144 -0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.8%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	58
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	110
129-00-0	Pyrene	88
85-68-7	Butylbenzylphthalate	20
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	38
117-81-7	bis(2-Ethylhexyl)phthalate	440
218-01-9	Chrysene	68
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	59
207-08-9	Benzo(k)fluoranthene	38
50-32-8	Benzo(a)pyrene	41
193-39-5	Indeno(1,2,3-cd)pyrene	31
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	28

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	67.0%	d5-Phenol	65.5%
2-Fluorobiphenyl	73.0%	2-Fluorophenol	54.7%
d14-p-Terphenyl	82.5%	2,4,6-Tribromophenol	92.5%
d4-1,2-Dichlorobenzene	51.2%	d4-2-Chlorophenol	59.4%

FORM-1

00495

JMB  
1/23/98  
2220



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4771  
WR-SD- SD(44-000)  
Lab Sample ID: T971BL QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18087 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/24/97  
Date Received: 09/27/97  
Data Release Authorized: *ONP*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.57	SVOA	1,600 JN
2. 103-82-2	Benzeneacetic_acid_____	14.13	SVOA	2,100 JN
3. 544-63-8	Tetradecanoic_acid_____	21.85	SVOA	390 JN
4. 1002-84-2	Pentadecanoic_acid_____	22.73	SVOA	840 JN
5. --	Unknown_____	23.35	SVOA	350 JN
6. --	Unknown_____	24.28	SVOA	1,100 JN
7. 57-10-3	Hexadecanoic_acid_____	24.55	SVOA	1,100 JN
8. 112-80-1	Oleic_Acid_____	26.67	SVOA	930 JN
9. 57-11-4	Octadecanoic_acid_____	26.88	SVOA	290 JN
10. --	Unknown_____	27.55	SVOA	540 JN
11. --	Unknown_____	32.03	SVOA	400 JN
12. --	Unknown_____	32.55	SVOA	320 JN
13. --	Unknown_____	33.70	SVOA	420 JN
14. --	Unknown_PNA_+ C.E._____	34.00	SVOA	400 JN
15. --	Unknown_____	35.35	SVOA	350 JN
16. --	Unknown_____	36.10	SVOA	540 JN
17. 57-88-5	Cholesterol_____	36.40	SVOA	830 JN
18. --	Unknown_____	37.97	SVOA	2,400 JN
19. --	Unknown_____	38.32	SVOA	1,100 JN
20. --	Unknown_____	38.57	SVOA	400 JN

FORM-1-B

00496

JMB 198  
123221



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BM

LIMS ID: 97-18088

Matrix: Sediment

Data Release Authorized: *OMB*

Reported: 11/24/97

Sample No: 9739 4772

WR-SD - SD146-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.7%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	750
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00497

JMB  
11/23/97  
2272



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BM

LIMS ID: 97-18088

Matrix: Sediment

Data Release Authorized: *WRP*

Reported: 11/24/97

Sample No: 9739 4772

WR- SD- SD146- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	32
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	55
129-00-0	Pyrene	50
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	22
117-81-7	bis(2-Ethylhexyl)phthalate	170
218-01-9	Chrysene	38
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	24
207-08-9	Benzo(k)fluoranthene	20
50-32-8	Benzo(a)pyrene	23
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	73.6%	d5-Phenol	73.5%
2-Fluorobiphenyl	80.2%	2-Fluorophenol	57.8%
d14-p-Terphenyl	78.7%	2,4,6-Tribromophenol	97.8%
d4-1,2-Dichlorobenzene	54.2%	d4-2-Chlorophenol	69.5%

FORM-1

00498

2273  
JME  
123/9



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4772

WR-SD - SDi46-0000

Lab Sample ID: T971BM  
LIMS ID: 97-18088  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *AMT*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	5.93	SVOA	600 JN
2. 116-53-0	Butanoic acid, 2-methyl-	6.45	SVOA	1,100 JN
3. 109-52-4	Pentanoic acid	6.75	SVOA	310 JN
4. 544-63-8	Tetradecanoic acid	21.83	SVOA	350 JN
5. 1002-84-2	Pentadecanoic acid	22.72	SVOA	690 JN
6. --	Unknown	22.85	SVOA	540 JN
7. --	Unknown	24.28	SVOA	1,600 JN
8. --	Unknown	24.38	SVOA	550 JN
9. 57-10-3	Hexadecanoic acid	24.55	SVOA	1,200 JN
10. 112-80-1	Oleic Acid	26.68	SVOA	2,500 JN
11. 57-11-4	Octadecanoic acid	26.87	SVOA	420 JN
12. --	Unknown_Alkyl_PNA + C.E.	27.55	SVOA	410 JN
13. --	Unknown	28.75	SVOA	390 JN
14. --	Unknown	32.53	SVOA	470 JN
15. 80-97-7	Cholestanol	36.03	SVOA	700 JN
16. 57-88-5	Cholesterol	36.37	SVOA	940 JN
17. --	Unknown	37.95	SVOA	3,400 JN
18. --	Unknown	38.30	SVOA	2,500 JN
19. --	Unknown	38.53	SVOA	890 JN
20. 1058-61-3	Stigmast-4-en-3-one	38.83	SVOA	580 JN

FORM-1-B  
00499

2274  
JMB 10/31/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BN

LIMS ID: 97-18089

Matrix: Sediment

Data Release Authorized: *ONR*

Reported: 11/24/97

Sample No: 9739 4775

WR-SD-S D147-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/14/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.4%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	990
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00500

2321

JME  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BN

LIMS ID: 97-18089

Matrix: Sediment

Data Release Authorized: *GRB*

Reported: 11/24/97

Sample No: 9739 4775

WR-SD-SD147-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/14/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.4%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	25
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	57
129-00-0	Pyrene	54
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	22
117-81-7	bis(2-Ethylhexyl)phthalate	170
218-01-9	Chrysene	37
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	26
207-08-9	Benzo(k)fluoranthene	31
50-32-8	Benzo(a)pyrene	27
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.8%	d5-Phenol	72.0%
2-Fluorobiphenyl	77.7%	2-Fluorophenol	53.0%
d14-p-Terphenyl	89.2%	2,4,6-Tribromophenol	89.5%
d4-1,2-Dichlorobenzene	53.0%	d4-2-Chlorophenol	64.7%

FORM-1

00501

*JMB*  
11/23/98  
2322



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4775

WR-SD- SD147-0000

Lab Sample ID: T971BN  
LIMS ID: 97-18089  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *GRB*  
Reported: 11/24/97

Date Analyzed: 11/14/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.47	SVOA	1,200 JN
2. 103-82-2	Benzeneacetic_acid_____	14.08	SVOA	1,700 JN
3. 544-63-8	Tetradecanoic_acid_____	21.82	SVOA	320 JN
4. 1002-84-2	Pentadecanoic_acid_____	22.70	SVOA	580 JN
5. 5746-58-7	Tetradecanoic_acid,_12-me	22.82	SVOA	520 JN
6. --	Unknown_____	24.35	SVOA	360 JN
7. 57-10-3	Hexadecanoic_acid_____	24.52	SVOA	990 JN
8. 112-80-1	Oleic_Acid_____	26.65	SVOA	1,200 JN
9. --	Unknown_____	32.02	SVOA	360 JN
10. --	Unknown_____	32.53	SVOA	450 JN
11. --	Unknown_Aldehyde_____	33.67	SVOA	380 JN
12. 80-97-7	Cholestanol	36.05	SVOA	740 JN
13. 57-88-5	Cholesterol	36.37	SVOA	640 JN
14. --	Unknown_Sterol_____	36.72	SVOA	630 JN
15. 4651-51-8	Ergost-5-en-3-ol,_ (3. $\beta$ )	37.28	SVOA	540 JN
16. --	Cholest-4-ene-3-one_____	37.37	SVOA	350 JN
17. --	Unknown_____	37.95	SVOA	3,200 JN
18. --	Unknown_Sterol_____	38.30	SVOA	1,800 JN
19. --	Unknown_____	38.53	SVOA	680 JN
20. --	Unknown_____	38.83	SVOA	540 JN

FORM-1-B

00502

JMB  
12319  
2323



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BO

LIMS ID: 97-18090

Matrix: Sediment

Data Release Authorized: *DKH*

Reported: 11/24/97

Sample No: 9739 4776

WR-SD- SDI 49-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.6%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	800
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00503

JMB 12/23/98  
2370



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BO

LIMS ID: 97-18090

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/24/97

Sample No: 9739 4776

WR-SD-SD149-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	19 J
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	180
86-74-8	Carbazole	23
120-12-7	Anthracene	23
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	320
129-00-0	Pyrene	240
85-68-7	Butylbenzylphthalate	40
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	84
117-81-7	bis(2-Ethylhexyl)phthalate	100
218-01-9	Chrysene	170
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	86
50-32-8	Benzo(a)pyrene	63
193-39-5	Indeno(1,2,3-cd)pyrene	46
53-70-3	Dibenz(a,h)anthracene	19 J
191-24-2	Benzo(g,h,i)perylene	43

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	66.1%	d5-Phenol	69.7%
2-Fluorobiphenyl	72.2%	2-Fluorophenol	56.8%
d14-p-Terphenyl	76.1%	2,4,6-Tribromophenol	81.1%
d4-1,2-Dichlorobenzene	56.6%	d4-2-Chlorophenol	57.9%

FORM-1

00504

JMB  
11/23/98  
2371



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4776

WR-SD-SD149-0000

Lab Sample ID: T971BO  
LIMS ID: 97-18090  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *RW*  
Reported: 11/24/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl-	6.00	SVOA	1,500 JN
2. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.12	SVOA	380 JN
3. 116-53-0	Butanoic_acid,_2-methyl-	6.40	SVOA	580 JN
4. 109-52-4	Pentanoic_acid_____	6.75	SVOA	360 JN
5. 103-82-2	Benzeneacetic_acid_____	14.20	SVOA	1,500 JN
6. 544-63-8	Tetradecanoic_acid_____	21.95	SVOA	130 JN
7. --	Unknown_____	22.83	SVOA	180 JN
8. --	Unknown_____	22.95	SVOA	170 JN
9. --	Unknown_____	24.08	SVOA	140 JN
10. --	Unknown_____	24.38	SVOA	420 JN
11. --	Unknown_____	24.48	SVOA	120 JN
12. 57-10-3	Hexadecanoic_acid_____	24.62	SVOA	320 JN
13. --	Unknown_____	26.78	SVOA	290 JN
14. --	Unknown_____	32.20	SVOA	280 JN
15. --	Unknown_____	36.23	SVOA	260 JN
16. 57-88-5	Cholesterol_____	36.55	SVOA	400 JN
17. --	Unknown_____	38.12	SVOA	1,600 JN
18. --	Unknown_____	38.35	SVOA	530 JN
19. --	Unknown_____	38.47	SVOA	790 JN
20. --	Unknown_____	38.70	SVOA	300 JN

JMB  
123/98  
2372



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BP

LIMS ID: 97-18091

Matrix: Sediment

Data Release Authorized: *DMB*

Reported: 11/24/97

Sample No: 9739 4777

WR-SD-SD151-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.5%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	810
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00506

JMB  
10/23/98  
2426



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BP

LIMS ID: 97-18091

Matrix: Sediment

Data Release Authorized: *AKP*

Reported: 11/24/97

Sample No: 9739 4777

WR-SD-SD151-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.5%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	18 J
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	120
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19
84-74-2	Di-n-Butylphthalate	24
206-44-0	Fluoranthene	270
129-00-0	Pyrene	180
85-68-7	Butylbenzylphthalate	100
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	94
117-81-7	bis(2-Ethylhexyl)phthalate	160
218-01-9	Chrysene	160
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	140
207-08-9	Benzo(k)fluoranthene	97
50-32-8	Benzo(a)pyrene	83
193-39-5	Indeno(1,2,3-cd)pyrene	68
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	64

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	74.8%	d5-Phenol	78.9%
2-Fluorobiphenyl	76.5%	2-Fluorophenol	62.6%
d14-p-Terphenyl	75.7%	2,4,6-Tribromophenol	89.1%
d4-1,2-Dichlorobenzene	64.2%	d4-2-Chlorophenol	70.3%

FORM-1

00507

JMB  
1123/98  
2427



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4777

WR-SD-SD151-0000

Lab Sample ID: T971BP  
LIMS ID: 97-18091  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *JMB*  
Reported: 11/24/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.12	SVOA	600 JN
2. --	Unknown_Organic_Acid_____	6.68	SVOA	1,300 JN
3. 109-52-4	Pentanoic_acid_____	7.03	SVOA	320 JN
4. 103-82-2	Benzeneacetic_acid_____	14.27	SVOA	1,400 JN
5. 544-63-8	Tetradecanoic_acid_____	21.97	SVOA	150 JN
6. 1002-84-2	Pentadecanoic_acid_____	22.85	SVOA	310 JN
7. 5746-58-7	Tetradecanoic_acid,_12-me	22.97	SVOA	280 JN
8. --	Unknown_____	24.40	SVOA	590 JN
9. --	Unknown_____	24.50	SVOA	220 JN
10. --	Unknown_____	26.80	SVOA	290 JN
11. --	Unknown_Alkyl_PNA+_C.E._	27.72	SVOA	220 JN
12. --	Unknown_____	32.20	SVOA	260 JN
13. --	Unknown_____	32.72	SVOA	160 JN
14. --	Unknown_PNA_____	34.18	SVOA	200 JN
15. 80-97-7	Cholestanol_____	36.22	SVOA	280 JN
16. 57-88-5	Cholesterol_____	36.55	SVOA	400 JN
17. --	Unknown_____	37.47	SVOA	160 JN
18. --	Unknown_____	38.13	SVOA	1,400 JN
19. --	Unknown_____	38.48	SVOA	930 JN
20. --	Unknown_____	38.72	SVOA	340 JN

FORM-1-B

00508

*JMB*  
123/98  
2428



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BQ

LIMS ID: 97-18092

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/24/97

Sample No: 9739 4778

WR-SD-SD151-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	870
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	22
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00503

2481

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BQ

LIMS ID: 97-18092

Matrix: Sediment

Data Release Authorized: *MM*

Reported: 11/24/97

Sample No: 9739 4778

WR-SD- SD151-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	29
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	200
86-74-8	Carbazole	19 U
120-12-7	Anthracene	33
84-74-2	Di-n-Butylphthalate	23 <i>MN</i>
206-44-0	Fluoranthene	350
129-00-0	Pyrene	250
85-68-7	Butylbenzylphthalate	130
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	130
117-81-7	bis(2-Ethylhexyl)phthalate	160
218-01-9	Chrysene	200
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	170
207-08-9	Benzo(k)fluoranthene	130
50-32-8	Benzo(a)pyrene	100
193-39-5	Indeno(1,2,3-cd)pyrene	64
53-70-3	Dibenz(a,h)anthracene	21
191-24-2	Benzo(g,h,i)perylene	68

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	77.9%	d5-Phenol	80.8%
2-Fluorobiphenyl	85.4%	2-Fluorophenol	70.2%
d14-p-Terphenyl	81.2%	2,4,6-Tribromophenol	92.9%
d4-1,2-Dichlorobenzene	63.8%	d4-2-Chlorophenol	68.5%

FORM-1

00510

2482  
JMB  
123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4778

WR-SD-SD151-1000

Lab Sample ID: T971BQ  
LIMS ID: 97-18092  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *OMB*  
Reported: 11/24/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.05	SVOA	2,000 JN
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.45	SVOA	750 JN
3. 109-52-4	Pentanoic_acid_____	6.78	SVOA	380 JN
4. 103-82-2	Benzeneacetic_acid_____	14.20	SVOA	1,400 JN
5. 544-63-8	Tetradecanoic_acid_____	21.95	SVOA	150 JN
6. 1002-84-2	Pentadecanoic_acid_____	22.83	SVOA	270 JN
7. --	Unknown_Organic_Acid_____	22.95	SVOA	250 JN
8. --	Unknown_____	24.07	SVOA	170 JN
9. --	Unknown_____	24.38	SVOA	590 JN
10. --	Unknown_____	24.48	SVOA	150 JN
11. --	Unknown_____	25.35	SVOA	210 JN
12. 112-80-1	Oleic_Acid_____	26.78	SVOA	270 JN
13. --	Unknown_Alkyl_PNA_+ C.E.	27.72	SVOA	210 JN
14. --	Unknown_____	31.98	SVOA	170 JN
15. --	Unknown_____	32.20	SVOA	250 JN
16. --	Unknown_____	33.78	SVOA	210 JN
17. --	Coprostan-3-one_____	36.48	SVOA	240 JN
18. --	Unknown_____	36.90	SVOA	200 JN
19. --	Unknown_____	38.12	SVOA	1,000 JN
20. --	Unknown_____	38.47	SVOA	660 JN

FORM-1-B

JMB/123/98  
2483

00511



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AA

LIMS ID: 97-18051

Matrix: Sediment

Data Release Authorized: *DMH*

Reported: 11/20/97

Sample No: 9739 4729

WR-SD-SD141-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 60.8%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	1,000
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U <i>J</i>
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	37
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00512

2536  
*JMB*  
*10/23/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AA

LIMS ID: 97-18051

Matrix: Sediment

Data Release Authorized: *ABP*

Reported: 11/20/97

Sample No: 9739 4729

WR-SD-SD141-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 60.8%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	130
86-74-8	Carbazole	20 U
120-12-7	Anthracene	26
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	300
129-00-0	Pyrene	350
85-68-7	Butylbenzylphthalate	33
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	110
117-81-7	bis(2-Ethylhexyl)phthalate	980
218-01-9	Chrysene	190
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	160
207-08-9	Benzo(k)fluoranthene	130
50-32-8	Benzo(a)pyrene	130
193-39-5	Indeno(1,2,3-cd)pyrene	68
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	63

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	40.6%	d5-Phenol	45.4%
2-Fluorobiphenyl	43.8%	2-Fluorophenol	37.5%
d14-p-Terphenyl	56.6%	2,4,6-Tribromophenol	53.2%
d4-1,2-Dichlorobenzene	28.4%	d4-2-Chlorophenol	39.0%

FORM-1

00513

2537

JMB  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4729

WR-SD-SD141-0000

Lab Sample ID: T971AA  
LIMS ID: 97-18051  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *BMH*  
Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.68	SVOA	1,400 JN
2. 544-63-8	Tetradecanoic_acid_____	22.48	SVOA	880 JN
3. 1002-84-2	Pentadecanoic_acid_____	23.37	SVOA	1,200 JN
4. --	Unknown_Organic_Acid_____	23.50	SVOA	1,300 JN
5. --	Unknown_____	23.68	SVOA	730 JN
6. --	Unknown_____	24.97	SVOA	5,700 JN
7. 57-10-3	Hexadecanoic_acid_____	25.25	SVOA	3,600 JN
8. --	Unknown_____	25.67	SVOA	650 JN
9. 150-86-7	Phytol_____	26.87	SVOA	770 JN
10. --	Unknown_____	27.28	SVOA	2,300 JN
11. 57-11-4	Octadecanoic_acid_____	27.52	SVOA	650 JN
12. --	Unknown_Alkyl_PNA+_C.E._	28.22	SVOA	980 JN
13. --	Unknown_____	28.48	SVOA	640 JN
14. 112-85-6	Docosanoic_acid_____	31.82	SVOA	650 JN
15. --	Unknown_____	34.33	SVOA	1,200 JN
16. --	Unknown_____	37.05	SVOA	1,300 JN
17. --	Unknown_____	37.23	SVOA	760 JN
18. --	Unknown_____	38.22	SVOA	830 JN
19. --	Unknown_Sterol_____	38.52	SVOA	1,600 JN
20. --	Unknown_____	38.62	SVOA	990 J N

FORM-1-B

99514

JMK  
2538 112319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AB

LIMS ID: 97-18052

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/20/97

Sample No: 9739 4730

WR-SD-SD141-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 60.6%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	880
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U <i>J</i>
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	25
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

99515

*JMB*  
1123198  
2594



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AB

LIMS ID: 97-18052

Matrix: Sediment

Data Release Authorized: *AKB*

Reported: 11/20/97

Sample No: 9739 4730

WR-SD-SD141-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 60.6%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	100
86-74-8	Carbazole	20 U
120-12-7	Anthracene	22
84-74-2	Di-n-Butylphthalate	25
206-44-0	Fluoranthene	170
129-00-0	Pyrene	230
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	75
117-81-7	bis(2-Ethylhexyl)phthalate	810
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	96
207-08-9	Benzo(k)fluoranthene	91
50-32-8	Benzo(a)pyrene	87
193-39-5	Indeno(1,2,3-cd)pyrene	53
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	50

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	35.1%	d5-Phenol	40.1%
2-Fluorobiphenyl	39.9%	2-Fluorophenol	29.3%
d14-p-Terphenyl	52.1%	2,4,6-Tribromophenol	46.4%
d4-1,2-Dichlorobenzene	24.8%	d4-2-Chlorophenol	33.8%

FORM-1

99516

*JMB 123/98*  
2595



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4730

WR-SD- SDI 41-1000

Lab Sample ID: T971AB

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18052

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *AMT*

Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_____	5.97	SVOA	730 JN
2. --	Unknown_Organic_Acid_____	6.45	SVOA	1,600 JN
3. 116-53-0	Butanoic_acid,_2-methyl_-	6.92	SVOA	1,600 JN
4. 103-82-2	Benzeneacetic_acid_____	14.63	SVOA	1,700 JN
5. 156-38-7	Benzeneacetic_acid,_4-hyd	19.52	SVOA	680 JN
6. 544-63-8	Tetradecanoic_acid_____	22.43	SVOA	800 JN
7. 1002-84-2	Pentadecanoic_acid_____	23.30	SVOA	1,400 JN
8. 87-51-4	Indoleacetic_acid_____	24.20	SVOA	510 JN
9. 57-10-3	Hexadecanoic_acid_____	25.17	SVOA	2,100 JN
10. --	Unknown_____	25.62	SVOA	610 JN
11. 112-80-1	Oleic_Acid_____	27.25	SVOA	1,700 JN
12. 57-11-4	Octadecanoic_acid_____	27.47	SVOA	530 JN
13. --	Unknown_Alkyl_PNA+_C.E._	28.17	SVOA	940 JN
14. --	Unknown_____	32.68	SVOA	490 JN
15. 7683-64-9	Squalene_____	34.23	SVOA	1,400 JN
16. --	Unknown_____	37.03	SVOA	1,300 JN
17. --	Unknown_____	37.20	SVOA	700 JN
18. --	Unknown_Sterol_____	37.40	SVOA	970 JN
19. --	Unknown_Sterol_____	38.52	SVOA	1,700 JN
20. --	Unknown_____	38.60	SVOA	870 JN

FORM-1-B

00517

JMB 2596  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AC

LIMS ID: 97-18053

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/20/97

Sample No: 9739 4731

WR-SD-SD148-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.1%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	690
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U <i>J</i>
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	110
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	25
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U <i>J</i>
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	47
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	21
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00518

*JMB*  
*11/23/98*  
*12651*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AC

LIMS ID: 97-18053

Matrix: Sediment

Data Release Authorized: *BLW*

Reported: 11/20/97

Sample No: 9739 4731

WR-SD-SD148-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.1%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	38
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	190
86-74-8	Carbazole	20 U
120-12-7	Anthracene	41
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	220
129-00-0	Pyrene	340
85-68-7	Butylbenzylphthalate	20
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	88
117-81-7	bis(2-Ethylhexyl)phthalate	640
218-01-9	Chrysene	130
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	120
207-08-9	Benzo(k)fluoranthene	97
50-32-8	Benzo(a)pyrene	120
193-39-5	Indeno(1,2,3-cd)pyrene	73
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	72

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.3%	d5-Phenol	59.7%
2-Fluorobiphenyl	54.7%	2-Fluorophenol	38.3%
d14-p-Terphenyl	69.4%	2,4,6-Tribromophenol	57.9%
d4-1,2-Dichlorobenzene	45.6%	d4-2-Chlorophenol	48.3%

FORM-1

00519

*JMB*  
*1/23/98*  
*2652*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4731

WR-SD- SD148- 0000

Lab Sample ID: T971AC  
LIMS ID: 97-18053  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *AWP*  
Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.38	SVOA	1,400 JN
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.75	SVOA	1,000 JN
3. 103-82-2	Benzeneacetic_acid_____	14.57	SVOA	1,400 JN
4. 544-63-8	Tetradecanoic_acid_____	22.42	SVOA	390 JN
5. --	Unknown_____	23.23	SVOA	520 JN
6. --	Unknown_____	24.88	SVOA	1,500 JN
7. --	Unknown_____	24.98	SVOA	800 JN
8. 57-10-3	Hexadecanoic_acid_____	25.15	SVOA	1,200 JN
9. --	Unknown_____	25.60	SVOA	340 JN
10. --	Unknown_____	27.25	SVOA	650 JN
11. 57-11-4	Octadecanoic_acid_____	27.45	SVOA	320 JN
12. --	Unknown_Alkyl_PNA+_C.E._	28.20	SVOA	520 JN
13. 112-85-6	Docosanoic_acid_____	31.80	SVOA	410 JN
14. --	Unknown_Organic_Acid_____	33.77	SVOA	350 JN
15. --	Unknown_Aldehyde_____	34.32	SVOA	650 JN
16. --	Unknown_____	34.63	SVOA	410 JN
17. --	Unknown_____	37.20	SVOA	370 JN
18. --	Unknown_Sterol_____	37.40	SVOA	560 JN
19. --	Unknown_Sterol_____	38.52	SVOA	1,100 JN
20. --	Unknown_____	38.62	SVOA	610 JN

FORM-I-B

00520

2653  
*JMB*  
1123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AD

LIMS ID: 97-18054

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/20/97

Sample No: 9739 4732

WR-SD- SD124-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U <i>J</i>
106-44-5	4-Methylphenol	610
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

60521

*MB*  
123/98  
2710



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AD

LIMS ID: 97-18054

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/20/97

Sample No: 9739 4732

WR-SD- SD124-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	67
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	70
129-00-0	Pyrene	89
85-68-7	Butylbenzylphthalate	82
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	35
117-81-7	bis(2-Ethylhexyl)phthalate	340
218-01-9	Chrysene	52
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	37
207-08-9	Benzo(k)fluoranthene	36
50-32-8	Benzo(a)pyrene	45
193-39-5	Indeno(1,2,3-cd)pyrene	28
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	26

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	46.5%	d5-Phenol	49.0%
2-Fluorobiphenyl	46.6%	2-Fluorophenol	27.8%
d14-p-Terphenyl	68.0%	2,4,6-Tribromophenol	62.8%
d4-1,2-Dichlorobenzene	35.9%	d4-2-Chlorophenol	39.5%

FORM-1

00522

MB/1234  
2711



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4732

WR-SD-SD124-0000

Lab Sample ID: T971AD  
LIMS ID: 97-18054  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *ABP*

Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.43	SVOA	910 JN
2. 103-82-2	Benzeneacetic_acid_____	14.50	SVOA	550 JN
3. 544-63-8	Tetradecanoic_acid_____	22.43	SVOA	290 JN
4. 1002-84-2	Pentadecanoic_acid_____	23.32	SVOA	670 JN
5. --	Unknown_____	23.43	SVOA	720 JN
6. --	Unknown_____	23.67	SVOA	330 JN
7. --	Unknown_____	23.90	SVOA	400 JN
8. --	Unknown_____	24.88	SVOA	1,900 JN
9. 57-10-3	Hexadecanoic_acid_____	25.15	SVOA	1,600 JN
10. --	Unknown_____	25.33	SVOA	1,900 J N
11. --	Unknown_____	26.77	SVOA	480 J N
12. --	Unknown_____	27.25	SVOA	1,900 J N
13. 57-11-4	Octadecanoic_acid_____	27.50	SVOA	630 J N
14. --	Unknown_Alkyl_PNA_____	28.18	SVOA	570 J N
15. --	Unknown_PNA_+ C.E._____	32.68	SVOA	240 J N
16. 57-88-5	Cholesterol_____	37.00	SVOA	1,500 J N
17. --	Unknown_____	37.37	SVOA	780 J N
18. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta)	37.82	SVOA	700 J N
19. 83-47-6	.gamma.-Sitosterol_____	38.53	SVOA	3,000 J N
20. --	Unknown_____	38.82	SVOA	330 J N

FORM-1-B

98523

JMB  
1/23/98  
2712



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AE

LIMS ID: 97-18055

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/21/97

Sample No: 9739 4733

WR-SD - SD126-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 54.3%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	170
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

90524

JMB 10/23/97  
2763



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AE

LIMS ID: 97-18055

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 11/21/97

Sample No: 9739 4733

WR-SD-SD126-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 54.3%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	47
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	97
129-00-0	Pyrene	96
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	37
117-81-7	bis(2-Ethylhexyl)phthalate	120
218-01-9	Chrysene	55
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	36
207-08-9	Benzo(k)fluoranthene	36
50-32-8	Benzo(a)pyrene	40
193-39-5	Indeno(1,2,3-cd)pyrene	33
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	38

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	67.6%	d5-Phenol	70.1%
2-Fluorobiphenyl	72.8%	2-Fluorophenol	61.0%
d14-p-Terphenyl	81.1%	2,4,6-Tribromophenol	94.7%
d4-1,2-Dichlorobenzene	58.8%	d4-2-Chlorophenol	64.3%

FORM-1

00525

JMB  
1/23/98  
2764



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4733  
WR-SD- SD126-0000  
Lab Sample ID: T971AE QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18055 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Data Release Authorized: *On P* Date Received: 09/27/97  
Reported: 11/21/97

Date Analyzed: 11/20/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.13	SVOA	420 JN
2. 1002-84-2	Pentadecanoic_acid_____	22.90	SVOA	180 JN
3. --	Unknown_____	23.58	SVOA	120 JN
4. --	Unknown_____	24.45	SVOA	290 JN
5. 57-10-3	Hexadecanoic_acid_____	24.70	SVOA	380 JN
6. 10544-50-0	Sulfur,_mol._(S8)_____	25.68	SVOA	250 JN
7. --	Unknown_____	26.87	SVOA	620 JN
8. 57-11-4	Octadecanoic_acid_____	27.08	SVOA	300 JN
9. --	Unknown_Alkyl_PNA+_C.E._____	27.83	SVOA	740 JN
10. --	Unknown_____	32.30	SVOA	380 JN
11. --	Unknown_____	33.93	SVOA	1,200 JN
12. --	Unknown_PNA+_C.E._____	34.27	SVOA	320 JN
13. --	Unknown_Aldehyde_____	35.73	SVOA	440 JN
14. --	Unknown_____	36.32	SVOA	1,400 JN
15. 57-88-5	Cholesterol_____	36.62	SVOA	1,800 JN
16. 4651-51-8	Ergost-5-en-3-ol,_(_3.beta_____	37.48	SVOA	960 JN
17. --	Sitosterol_Iso_____	38.15	SVOA	5,500 JN
18. --	Unknown_____	38.43	SVOA	1,500 JN
19. --	Unknown_____	38.57	SVOA	2,100 JN
20. 545-47-1	Lupeol_____	38.77	SVOA	1,100 JN

FORM-1-B

09526

JMB 1/23  
2765



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AF

LIMS ID: 97-18056

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/20/97

Sample No: 9739 4734

WR-SD- SD128-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.4%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	52
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	540
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	57
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	35
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	130
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	62
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1  
00527

JMB  
12319  
2813



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AF

LIMS ID: 97-18056

Matrix: Sediment

Data Release Authorized: *JMP*

Reported: 11/20/97

Sample No: 9739 4734

WR-SD- SD128- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.4%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	170
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	1,200
86-74-8	Carbazole	55
120-12-7	Anthracene	160
84-74-2	Di-n-Butylphthalate	26
206-44-0	Fluoranthene	1,700-1900 D
129-00-0	Pyrene	1,400
85-68-7	Butylbenzylphthalate	55
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	700
117-81-7	bis(2-Ethylhexyl)phthalate	970
218-01-9	Chrysene	920
117-84-0	Di-n-Octyl phthalate	280
205-99-2	Benzo(b)fluoranthene	1,100
207-08-9	Benzo(k)fluoranthene	510
50-32-8	Benzo(a)pyrene	820
193-39-5	Indeno(1,2,3-cd)pyrene	430
53-70-3	Dibenz(a,h)anthracene	120
191-24-2	Benzo(g,h,i)perylene	290

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	67.9%	d5-Phenol	60.9%
2-Fluorobiphenyl	68.1%	2-Fluorophenol	61.4%
d14-p-Terphenyl	69.4%	2,4,6-Tribromophenol	88.2%
d4-1,2-Dichlorobenzene	48.8%	d4-2-Chlorophenol	55.4%

FORM-1

90523

*JMB 12319*  
2814



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4734

WR-SD- SD128-0000

Lab Sample ID: T971AF  
LIMS ID: 97-18056  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *erw*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_____	6.15	SVOA	640 JN
2. --	Unknown_____	16.82	SVOA	260 JN
3. --	Naphthalene,_Trimethyl_Is	18.87	SVOA	400 JN
4. --	Unknown_____	19.77	SVOA	380 JN
5. --	Unknown_____	23.37	SVOA	190 JN
6. --	Unknown_____	23.60	SVOA	530 JN
7. --	Unknown_Alkyl_PNA_____	23.95	SVOA	320 JN
8. --	Unknown_____	24.32	SVOA	840 JN
9. 57-10-3	Hexadecanoic_acid_____	24.90	SVOA	1,500 JN
10. --	Unknown_____	25.05	SVOA	2,300 JN
11. --	Terphenyl_Iso_____	27.07	SVOA	500 JN
12. 57-11-4	Octadecanoic_acid_____	27.23	SVOA	510 JN
13. --	Unknown_PNA_+ C.E._____	27.85	SVOA	650 JN
14. --	Unknown_____	29.83	SVOA	340 JN
15. --	Unknown_____	32.08	SVOA	230 JN
16. --	Unknown_____	32.37	SVOA	560 JN
17. --	Unknown_____	33.92	SVOA	830 JN
18. --	Unknown_____	35.63	SVOA	250 JN
19. --	Unknown_____	36.83	SVOA	380 JN
20. --	Unknown_____	38.15	SVOA	1,200 JN

FORM-1-B

39520

JMB  
11/23/97  
2815



ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AF

LIMS ID: 97-18056

Matrix: Sediment

Data Release Authorized: *ewb*

Reported: 11/24/97

Sample No. 9739 4734

DILUTION

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:3

Percent Moisture: 52.4%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	60 U
111-44-4	Bis-(2-Chloroethyl) Ether	120 U
95-57-8	2-Chlorophenol	60 U
541-73-1	1,3-Dichlorobenzene	60 U
106-46-7	1,4-Dichlorobenzene	60 U
100-51-6	Benzyl Alcohol	60 U
95-50-1	1,2-Dichlorobenzene	60 U
95-48-7	2-Methylphenol	60 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	60 U
106-44-5	4-Methylphenol	660
621-64-7	N-Nitroso-Di-N-Propylamine	120 U
67-72-1	Hexachloroethane	60 U
98-95-3	Nitrobenzene	60 U
78-59-1	Isophorone	60 U
88-75-5	2-Nitrophenol	300 U
105-67-9	2,4-Dimethylphenol	60 U
65-85-0	Benzoic Acid	600 U
111-91-1	bis(2-Chloroethoxy) Methane	60 U
120-83-2	2,4-Dichlorophenol	180 U
120-82-1	1,2,4-Trichlorobenzene	60 U
91-20-3	Naphthalene	68
106-47-8	4-Chloroaniline	180 U
87-68-3	Hexachlorobutadiene	60 U
59-50-7	4-Chloro-3-methylphenol	120 U
91-57-6	2-Methylnaphthalene	60 U
77-47-4	Hexachlorocyclopentadiene	300 U
88-06-2	2,4,6-Trichlorophenol	300 U
95-95-4	2,4,5-Trichlorophenol	300 U
91-58-7	2-Chloronaphthalene	60 U
88-74-4	2-Nitroaniline	300 U
131-11-3	Dimethylphthalate	60 U
208-96-8	Acenaphthylene	60 U
99-09-2	3-Nitroaniline	360 U
83-32-9	Acenaphthene	160
51-28-5	2,4-Dinitrophenol	600 U
100-02-7	4-Nitrophenol	300 U
132-64-9	Dibenzofuran	70
606-20-2	2,6-Dinitrotoluene	300 U

FORM-1

00530

JMB  
1/23/98  
2888



**ANALYTICAL  
RESOURCES  
INCORPORATED**

**ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS**

Page 2 of 2

Lab Sample ID: T971AF

Sample No. 9739 4734  
DILUTION

LIMS ID: 97-18056

QC Report No: T971-Roy F. Weston

Matrix: Sediment

Project: 1001-006

Data Release Authorized: *OKP*

Date Sampled: 09/23/97

Reported: 11/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 50.1 g-dry-wt

Date analyzed: 11/13/97

Final Extract Volume: 1.0 mL

Instrument: finn8

Dilution Factor: 1:3

GPC Cleanup: YES

Percent Moisture: 52.4%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	300 U
84-66-2	Diethylphthalate	60 U
7005-72-3	4-Chlorophenyl-phenylether	60 U
86-73-7	Fluorene	200
100-01-6	4-Nitroaniline	300 U
534-52-1	4,6-Dinitro-2-Methylphenol	600 U
86-30-6	N-Nitrosodiphenylamine	60 U
101-55-3	4-Bromophenyl-phenylether	60 U
118-74-1	Hexachlorobenzene	60 U
87-86-5	Pentachlorophenol	300 U
85-01-8	Phenanthrene	1,500
86-74-8	Carbazole	60
120-12-7	Anthracene	200
84-74-2	Di-n-Butylphthalate	60 U
206-44-0	Fluoranthene	1,900
129-00-0	Pyrene	1,800
85-68-7	Butylbenzylphthalate	61
91-94-1	3,3'-Dichlorobenzidine	300 U
56-55-3	Benzo(a)anthracene	820
117-81-7	bis(2-Ethylhexyl)phthalate	1,700
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	60 U
205-99-2	Benzo(b)fluoranthene	790
207-08-9	Benzo(k)fluoranthene	640
50-32-8	Benzo(a)pyrene	780
193-39-5	Indeno(1,2,3-cd)pyrene	410
53-70-3	Dibenz(a,h)anthracene	120
191-24-2	Benzo(g,h,i)perylene	390

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	84.0%	d5-Phenol	74.3%
2-Fluorobiphenyl	81.0%	2-Fluorophenol	57.0%
d14-p-Terphenyl	82.2%	2,4,6-Tribromophenol	82.6%
d4-1,2-Dichlorobenzene	61.4%	d4-2-Chlorophenol	67.9%

FORM-1

99531

2889 1/23/98  
*JMB*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4734  
DILUTION  
Lab Sample ID: T971AF QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18056 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *RMB*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	13.78	SVOA	1,400 J N
2. ---	Unknown_____	24.02	SVOA	1,100 J N
3. ---	Unknown_____	24.33	SVOA	2,100 J N
4. 57-10-3	Hexadecanoic_acid_____	24.48	SVOA	1,600 J N
5. ---	Unknown_____	26.58	SVOA	760 J N
6. ---	Terphenyl_Iso_____	26.75	SVOA	570 J N
7. 57-11-4	Octadecanoic_acid_____	26.85	SVOA	740 J N
8. ---	Unknown_PNA + C.E._____	27.50	SVOA	710 J N
9. ---	Unknown_____	32.02	SVOA	1,300 J
10. ---	Unknown_____	32.78	SVOA	790 J
11. ---	Unknown_____	33.60	SVOA	1,100 J
12. ---	Unknown_PNA_____	33.98	SVOA	1,000 J
13. ---	Unknown_____	34.57	SVOA	640 J
14. ---	Unknown_____	35.75	SVOA	560 J
15. ---	Unknown_____	36.07	SVOA	580 J
16. 80-97-7	Cholestanol	36.38	SVOA	630 J N
17. ---	Unknown_Sterol	36.48	SVOA	700 J N
18. ---	Unknown_____	37.22	SVOA	1,200 J
19. ---	Unknown_Sterol	37.87	SVOA	3,600 J
20. ---	Unknown_____	38.47	SVOA	740 J



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AG

LIMS ID: 97-18057

Matrix: Sediment

Data Release Authorized: *BMB*

Reported: 11/20/97

Sample No: 9739 4736

WR-SD- SD125- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.3%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U <i>J</i>
106-44-5	4-Methylphenol	870
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U <i>J</i>
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U <i>J</i>
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

09533

2946

*JMB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AG

LIMS ID: 97-18057

Matrix: Sediment

Data Release Authorized: *BNP*

Reported: 11/20/97

Sample No: 9739 4736

WR-SD- SD125-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/05/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 50.3%  
pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	28
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	45
129-00-0	Pyrene	57
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	22
117-81-7	bis(2-Ethylhexyl)phthalate	250
218-01-9	Chrysene	35
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	24
207-08-9	Benzo(k)fluoranthene	24
50-32-8	Benzo(a)pyrene	30
193-39-5	Indeno(1,2,3-cd)pyrene	24
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	60.3%	d5-Phenol	50.6%
2-Fluorobiphenyl	44.1%	2-Fluorophenol	28.7%
d14-p-Terphenyl	70.7%	2,4,6-Tribromophenol	71.2%
d4-1,2-Dichlorobenzene	40.8%	d4-2-Chlorophenol	41.2%

FORM-1

39534

2947 JME  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4736  
WR-SD- SD125- 0000  
Lab Sample ID: T971AG QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18057 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *mp*  
Reported: 11/20/97

Date Analyzed: 11/05/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.32	SVOA	1,200 JN
2. 103-82-2	Benzeneacetic_acid_____	14.55	SVOA	1,600 JN
3. --	Unknown_____	22.42	SVOA	500 JN
4. 1002-84-2	Pentadecanoic_acid_____	23.30	SVOA	690 JN
5. --	Unknown_____	23.42	SVOA	680 JN
6. --	Unknown_____	23.88	SVOA	500 JN
7. --	Unknown_____	24.88	SVOA	2,000 JN
8. 2091-29-4	9-Hexadecenoic_acid_____	24.98	SVOA	590 JN
9. 57-10-3	Hexadecanoic_acid_____	25.15	SVOA	1,800 JN
10. --	Unknown_____	25.60	SVOA	350 JN
11. --	Unknown_Organic_Acid_____	27.28	SVOA	1,600 JN
12. --	Unknown_____	29.37	SVOA	270 JN
13. --	Unknown_____	34.22	SVOA	440 JN
14. --	Unknown_Aldehyde_____	34.28	SVOA	550 J N
15. --	Unknown_____	34.55	SVOA	260 J N
16. --	Octadecenal_Iso_____	36.08	SVOA	330 J N
17. 57-88-5	Cholesterol_____	37.00	SVOA	1,200 JN
18. --	Unknown_Sterol_____	37.37	SVOA	780 J N
19. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta)	37.82	SVOA	360 JN
20. 83-47-6	.gamma.-Sitosterol_____	38.52	SVOA	2,200 JN

FORM-1-B

09535

JMB 2948  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AH

LIMS ID: 97-18058

Matrix: Sediment

Data Release Authorized: *OMS*

Reported: 11/20/97

Sample No: 9739 4738

WR-SD- SD127-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.2%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	570
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

99536

JMB  
11/23/97  
2996



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AH

LIMS ID: 97-18058

Matrix: Sediment

Data Release Authorized: *AB*

Reported: 11/20/97

Sample No: 9739 4738

WR-SD- SD127-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.2%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	25
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	45
129-00-0	Pyrene	48
85-68-7	Butylbenzylphthalate	18 J
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	20
117-81-7	bis(2-Ethylhexyl)phthalate	160
218-01-9	Chrysene	31
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	22
207-08-9	Benzo(k)fluoranthene	24
50-32-8	Benzo(a)pyrene	24
193-39-5	Indeno(1,2,3-cd)pyrene	24
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.4%	d5-Phenol	52.5%
2-Fluorobiphenyl	61.3%	2-Fluorophenol	46.8%
d14-p-Terphenyl	71.3%	2,4,6-Tribromophenol	82.4%
d4-1,2-Dichlorobenzene	45.2%	d4-2-Chlorophenol	49.4%

FORM-1

00537

JMB 2997  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4738  
WR-SD- SD127-0000  
Lab Sample ID: T971AH QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18058 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *EWB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.22	SVOA	920 JN
2. 544-63-8	Tetradecanoic_acid_____	22.07	SVOA	320 JN
3. 1002-84-2	Pentadecanoic_acid_____	22.95	SVOA	600 JN
4. 5746-58-7	Tetradecanoic_acid,_12-me	23.07	SVOA	500 JN
5. --	Unknown_____	24.52	SVOA	1,400 JN
6. 2091-29-4	9-Hexadecenoic_acid_____	24.62	SVOA	510 JN
7. 57-10-3	Hexadecanoic_acid_____	24.78	SVOA	1,100 JN
8. --	Unknown_____	25.25	SVOA	260 J N
9. 112-80-1	Oleic_Acid_____	26.92	SVOA	2,600 JN
10. 7396-38-5	Phenanthrene,_2,4,5,7-tet	27.78	SVOA	580 JN
11. --	Unknown_____	32.07	SVOA	720 J N
12. --	Unknown_Aldehyde_____	33.92	SVOA	1,600 J N
13. --	Unknown_____	34.82	SVOA	900 J N
14. --	Unknown_____	36.27	SVOA	1,500 J N
15. 57-88-5	Cholesterol_____	36.58	SVOA	1,000 JN
16. --	Unknown_____	36.98	SVOA	1,100 J N
17. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta.	37.45	SVOA	1,100 JN
18. 83-47-6	.gamma.-Sitosterol_____	38.13	SVOA	4,500 JN
19. --	Unknown_____	38.55	SVOA	1,200 J N
20. --	Unknown_____	38.75	SVOA	970 J N

FORM-1-B

09538

JMB  
1/23/98  
2998



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AI

LIMS ID: 97-18059

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/20/97

Sample No: 9739 4739

WR-SD- SD130-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.7%

pH: 7.1

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	630
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

39539

*JMB*  
11/23/98  
3049



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AI

LIMS ID: 97-18059

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/20/97

Sample No: 9739 4739

WR-SD-SD130-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.7%

pH: 7.1

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	-97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	33
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	30
206-44-0	Fluoranthene	53
129-00-0	Pyrene	51
85-68-7	Butylbenzylphthalate	33
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	23
117-81-7	bis(2-Ethylhexyl)phthalate	400
218-01-9	Chrysene	35
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	26
207-08-9	Benzo(k)fluoranthene	30
50-32-8	Benzo(a)pyrene	29
193-39-5	Indeno(1,2,3-cd)pyrene	26
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	20

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.8%	d5-Phenol	49.1%
2-Fluorobiphenyl	60.9%	2-Fluorophenol	44.5%
d14-p-Terphenyl	71.9%	2,4,6-Tribromophenol	81.2%
d4-1,2-Dichlorobenzene	40.6%	d4-2-Chlorophenol	43.8%

FORM-1

99540

3050

*MWB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4739 WR-SD-SD130-0000  
Lab Sample ID: T971AI QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18059 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *dk*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_	6.08	SVOA	550 JN
2. 103-82-2	Benzeneacetic_acid	14.25	SVOA	1,200 JN
3. 544-63-8	Tetradecanoic_acid	22.08	SVOA	440 JN
4. 1002-84-2	Pentadecanoic_acid	22.97	SVOA	800 JN
5. --	Unknown	23.08	SVOA	710 JN
6. --	Unknown	23.55	SVOA	420 JN
7. 2091-29-4	9-Hexadecenoic_acid	24.53	SVOA	2,000 JN
8. 57-10-3	Hexadecanoic_acid	24.82	SVOA	2,100 JN
9. 112-80-1	Oleic_Acid	26.88	SVOA	3,000 JN
10. 57-11-4	Octadecanoic_acid	27.13	SVOA	840 JN
11. --	Unknown	33.83	SVOA	1,200 JN
12. --	Unknown_Aldehyde	33.92	SVOA	1,100 JN
13. --	Unknown	36.28	SVOA	1,600 JN
14. 57-88-5	Cholesterol	36.58	SVOA	2,000 JN
15. --	Unknown	36.98	SVOA	1,200 JN
16. 26047-31-4	Ergost-7-en-3-ol,_ (3.beta	37.45	SVOA	1,100 JN
17. 83-47-6	.gamma.-Sitosterol	38.13	SVOA	5,800 JN
18. 638-95-9	.alpha.-Amyrin	38.40	SVOA	1,500 JN
19. --	Unknown	38.55	SVOA	2,400 JN
20. --	Unknown	38.75	SVOA	980 JN

FORM-1-B

00541

3051  
JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AJ

LIMS ID: 97-18060

Matrix: Sediment

Data Release Authorized: *ON*

Reported: 11/21/97

Sample No: 9739 4741

WR-SD- SD104-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 6.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	1,300
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00542

JMB  
11/23/98  
3103



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AJ

LIMS ID: 97-18060

Matrix: Sediment

Data Release Authorized: *JWS*

Reported: 11/21/97

Sample No: 9739 4741

WR-SD-SD104-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/20/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.0%

pH: 6.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	40
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	86
129-00-0	Pyrene	78
85-68-7	Butylbenzylphthalate	19 J
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	34
117-81-7	bis(2-Ethylhexyl)phthalate	320
218-01-9	Chrysene	58
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	54
207-08-9	Benzo(k)fluoranthene	42
50-32-8	Benzo(a)pyrene	49
193-39-5	Indeno(1,2,3-cd)pyrene	48
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	47

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	68.7%	d5-Phenol	71.1%
2-Fluorobiphenyl	78.0%	2-Fluorophenol	61.5%
d14-p-Terphenyl	81.2%	2,4,6-Tribromophenol	120%
d4-1,2-Dichlorobenzene	58.0%	d4-2-Chlorophenol	63.7%

FORM-1

00543

*JMB*  
*123/98*  
3104



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4741  
WR-SD-SD104-0000  
Lab Sample ID: T971AJ QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18060 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *JMB*  
Reported: 11/21/97

Date Analyzed: 11/20/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.52	SVOA	720 JN
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.95	SVOA	2,300 JN
3. 103-82-2	Benzeneacetic_acid_____	14.37	SVOA	2,200 JN
4. 544-63-8	Tetradecanoic_acid_____	22.10	SVOA	540 JN
5. --	Unknown_____	22.93	SVOA	680 JN
6. --	Unknown_____	23.10	SVOA	640 JN
7. --	Unknown_____	23.60	SVOA	690 JN
8. --	Unknown_____	24.53	SVOA	1,500 JN
9. 57-10-3	Hexadecanoic_acid_____	24.80	SVOA	1,500 JN
10. --	Unknown_____	25.27	SVOA	280 JN
11. 112-80-1	Oleic_Acid_____	26.92	SVOA	2,800 JN
12. --	Unknown_____	33.88	SVOA	2,100 JN
13. --	Unknown_____	36.32	SVOA	1,700 JN
14. 57-88-5	Cholesterol_____	36.63	SVOA	2,900 JN
15. --	Unknown_____	37.02	SVOA	2,000 JN
16. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta	37.50	SVOA	2,300 JN
17. --	Sitosterol_Iso_____	38.15	SVOA	6,500 JN
18. --	Unknown_____	38.43	SVOA	1,800 JN
19. --	Unknown_____	38.57	SVOA	1,800 JN
20. 545-47-1	Lupeol_____	38.77	SVOA	960 JN



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AK

LIMS ID: 97-18061

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/20/97

Sample No: 9739 4742

WR-SD- SD105-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.2%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	590
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00545

*JMB*  
123/98  
3155



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AK

LIMS ID: 97-18061

Matrix: Sediment

Data Release Authorized: *AMB*

Reported: 11/20/97

Sample No: 9739 4742

*WR-SD-SD105-0000*

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.2%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	71
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	120
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	38
117-81-7	bis(2-Ethylhexyl)phthalate	270
218-01-9	Chrysene	58
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	36
207-08-9	Benzo(k)fluoranthene	46
50-32-8	Benzo(a)pyrene	36
193-39-5	Indeno(1,2,3-cd)pyrene	29
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	22

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	51.3%	d5-Phenol	46.9%
2-Fluorobiphenyl	57.0%	2-Fluorophenol	45.1%
d14-p-Terphenyl	74.9%	2,4,6-Tribromophenol	100%
d4-1,2-Dichlorobenzene	42.2%	d4-2-Chlorophenol	43.3%

FORM-1

00546

*JMB*  
11/23/98  
3156



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4742

WR-SD- SD105- 0000

Lab Sample ID: T971AK

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18061

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/23/97

Date Received: 09/27/97

Data Release Authorized: *AMH*

Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.25	SVOA	1,300 JN
2. 544-63-8	Tetradecanoic_acid_____	22.07	SVOA	390 JN
3. 1002-84-2	Pentadecanoic_acid_____	22.95	SVOA	680 JN
4. --	Unknown_____	23.08	SVOA	540 JN
5. --	Unknown_____	23.55	SVOA	390 JN
6. 2091-29-4	9-Hexadecenoic_acid_____	24.53	SVOA	1,500 JN
7. --	Unknown_____	24.63	SVOA	620 JN
8. 57-10-3	Hexadecanoic_acid_____	24.80	SVOA	1,400 JN
9. 112-80-1	Oleic_Acid_____	26.88	SVOA	2,900 JN
10. --	Unknown_____	32.07	SVOA	690 JN
11. --	Unknown_____	33.83	SVOA	1,200 JN
12. --	Octadecenal_Iso_____	33.92	SVOA	1,200 JN
13. --	Unknown_____	36.28	SVOA	1,600 JN
14. 57-88-5	Cholesterol_____	36.60	SVOA	2,500 JN
15. --	Unknown_____	36.98	SVOA	1,400 JN
16. 4651-51-8	Ergost-5-en-3-ol,_ (3. $\beta$ eta	37.45	SVOA	1,200 JN
17. --	Unknown_____	38.13	SVOA	6,400 JN
18. 638-95-9	.alpha.-Amyrin_____	38.40	SVOA	1,200 JN
19. --	Unknown_____	38.55	SVOA	2,500 JN
20. --	Unknown_____	38.75	SVOA	1,200 JN

FORM-1-B

09547

JMB  
123/48  
3157



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AL

LIMS ID: 97-18062

Matrix: Sediment

Data Release Authorized: *MBS*

Reported: 11/20/97

Sample No: 9739 4743

WR-SD-SD107-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.9%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	770
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	21
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	22
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	54
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	44
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

09548

*JMB 11/23/98  
13206*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AL

LIMS ID: 97-18062

Matrix: Sediment

Data Release Authorized: *AMP*

Reported: 11/20/97

Sample No: 9739 4743

WR-SD-SD107-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.9%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	66
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	350
86-74-8	Carbazole	19 U
120-12-7	Anthracene	38
84-74-2	Di-n-Butylphthalate	23
206-44-0	Fluoranthene	430
129-00-0	Pyrene	390
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	100
117-81-7	bis(2-Ethylhexyl)phthalate	430
218-01-9	Chrysene	170
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	84
207-08-9	Benzo(k)fluoranthene	93
50-32-8	Benzo(a)pyrene	79
193-39-5	Indeno(1,2,3-cd)pyrene	52
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	37

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.2%	d5-Phenol	50.8%
2-Fluorobiphenyl	61.0%	2-Fluorophenol	46.1%
d14-p-Terphenyl	76.5%	2,4,6-Tribromophenol	94.6%
d4-1,2-Dichlorobenzene	39.3%	d4-2-Chlorophenol	44.9%

FORM-1

99549

JMB 98  
11/23/3207



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4743

WR-SD - SD107-0000

Lab Sample ID: T971AL  
LIMS ID: 97-18062  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *JMB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic_acid_____	14.22	SVOA	1,100 JN
2. 544-63-8	Tetradecanoic_acid_____	22.08	SVOA	470 JN
3. 1002-84-2	Pentadecanoic_acid_____	22.97	SVOA	940 JN
4. 5746-58-7	Tetradecanoic_acid,_12-me	23.08	SVOA	580 JN
5. --	Unknown_____	23.32	SVOA	320 JN
6. --	Unknown_____	23.55	SVOA	440 JN
7. --	Unknown_____	23.85	SVOA	350 J N
8. --	Unknown_____	24.55	SVOA	640 J N
9. 57-10-3	Hexadecanoic_acid_____	24.83	SVOA	1,700 JN
10. 112-80-1	Oleic_Acid_____	26.93	SVOA	1,200 JN
11. --	Unknown_____	33.85	SVOA	420 J N
12. --	Unknown_Aldehyde_____	33.92	SVOA	450 J N
13. --	Unknown_____	36.28	SVOA	670 J N
14. 57-88-5	Cholesterol_____	36.60	SVOA	1,200 JN
15. --	Unknown_Sterol_type_____	36.98	SVOA	620 J N
16. 26047-31-4	Ergost-7-en-3-ol,_[3.βeta]	37.47	SVOA	500 JN
17. 83-47-6	.γamma.-Sitosterol_____	38.13	SVOA	2,600 JN
18. 559-70-6	.βeta.-Amyrin_____	38.40	SVOA	700 JN
19. --	Unknown_____	38.55	SVOA	960 J N
20. --	Unknown_____	38.73	SVOA	400 J N

FORM-1-B

00550

*JMB 1234*  
3208



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AM

LIMS ID: 97-18063

Matrix: Sediment

Data Release Authorized: *dkp*

Reported: 11/20/97

Sample No: 9739 4744

WR-SD- SD109-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.9%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	580
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	26
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	49
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	35
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

00551

JMB  
11/23/98  
32684



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AM

LIMS ID: 97-18063

Matrix: Sediment

Data Release Authorized: *ABP*

Reported: 11/20/97

Sample No: 9739 4744

WR-SD- SD109-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.9%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	58
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	300
86-74-8	Carbazole	20 U
120-12-7	Anthracene	34
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	360
129-00-0	Pyrene	300
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	100
117-81-7	bis(2-Ethylhexyl)phthalate	240
218-01-9	Chrysene	150
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	94
50-32-8	Benzo(a)pyrene	91
193-39-5	Indeno(1,2,3-cd)pyrene	57
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	46

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.2%	d5-Phenol	57.1%
2-Fluorobiphenyl	63.2%	2-Fluorophenol	52.3%
d14-p-Terphenyl	70.3%	2,4,6-Tribromophenol	91.8%
d4-1,2-Dichlorobenzene	45.4%	d4-2-Chlorophenol	49.3%



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4744  
WR-SD - SD109-0000

Lab Sample ID: T971AM  
LIMS ID: 97-18063  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *OKB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.52	SVOA	760 JN
2. 544-63-8	Tetradecanoic_acid_____	22.08	SVOA	330 JN
3. 1002-84-2	Pentadecanoic_acid_____	22.97	SVOA	770 JN
4. --	Unknown_____	23.10	SVOA	560 JN
5. 102608-53-7	3,7,11,15-Tetramethyl-2-h	23.57	SVOA	380 JN
6. --	Unknown_____	24.23	SVOA	260 JN
7. --	Unknown_____	24.55	SVOA	600 JN
8. --	Unknown_____	24.65	SVOA	450 JN
9. 57-10-3	Hexadecanoic_acid_____	24.82	SVOA	1,300 JN
10. --	Unknown_____	25.28	SVOA	290 JN
11. 112-80-1	Oleic_Acid_____	26.93	SVOA	870 JN
12. 57-11-4	Octadecanoic_acid_____	27.13	SVOA	290 JN
13. --	Unknown_Alkyl_PNA_____	27.80	SVOA	260 JN
14. --	Unknown_____	33.87	SVOA	680 JN
15. 57-88-5	Cholesterol_____	36.62	SVOA	230 JN
16. --	Unknown_____	37.02	SVOA	640 JN
17. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta	37.48	SVOA	530 JN
18. 83-47-6	.gamma.-Sitosterol_____	38.15	SVOA	2,700 JN
19. --	Unknown_____	38.58	SVOA	1,200 JN
20. --	Unknown_____	38.77	SVOA	470 JN

FORM-1-B

09553

JMB  
1/23/98  
3266



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AN

LIMS ID: 97-18064

Matrix: Sediment

Data Release Authorized: *RDW*

Reported: 11/20/97

Sample No: 9739 4745

WR-SD- SD110-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.1%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	700
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	34
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	39
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	24
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

09554

*JMB*  
11/23/98  
3320



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AN

LIMS ID: 97-18064

Matrix: Sediment

Data Release Authorized: *DHR*

Reported: 11/20/97

Sample No: 9739 4745

WR-SD-SD110-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.6 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.1%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	46
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	210
86-74-8	Carbazole	22 <i>M/N</i>
120-12-7	Anthracene	22
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	180
129-00-0	Pyrene	160
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	45
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	64
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	32
207-08-9	Benzo(k)fluoranthene	45
50-32-8	Benzo(a)pyrene	44
193-39-5	Indeno(1,2,3-cd)pyrene	31
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	20

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	73.1%	d5-Phenol	72.4%
2-Fluorobiphenyl	75.4%	2-Fluorophenol	66.3%
d14-p-Terphenyl	85.4%	2,4,6-Tribromophenol	125%
d4-1,2-Dichlorobenzene	51.4%	d4-2-Chlorophenol	62.4%

FORM-1

39555

3321

*JMB*  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4745

WR-SD- SD110-0000

Lab Sample ID: T971AN  
LIMS ID: 97-18064  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *BMB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.15	SVOA	1,000 JN
2. --	Unknown	6.60	SVOA	1,300 JN
3. 103-82-2	Benzeneacetic acid	14.28	SVOA	1,500 JN
4. 544-63-8	Tetradecanoic acid	22.07	SVOA	340 JN
5. 1002-84-2	Pentadecanoic acid	22.97	SVOA	910 JN
6. --	Unknown	23.87	SVOA	330 JN
7. --	Unknown	24.52	SVOA	1,100 JN
8. 57-10-3	Hexadecanoic acid	24.78	SVOA	1,000 JN
9. --	Unknown	26.38	SVOA	800 JN
10. 112-80-1	Oleic Acid	26.92	SVOA	3,500 JN
11. --	Unknown_Aalkyl_PNA	27.82	SVOA	3,000 JN
12. --	Unknown	29.33	SVOA	1,200 JN
13. --	Unknown	32.08	SVOA	1,500 JN
14. --	Unknown	32.30	SVOA	1,200 JN
15. --	Unknown	33.85	SVOA	1,200 JN
16. 80-97-7	Cholestanol	36.67	SVOA	1,100 JN
17. 83-47-6	.gamma.-Sitosterol	38.15	SVOA	7,800 JN
18. 559-70-6	.beta.-Amyrin	38.42	SVOA	1,200 JN
19. --	Unknown	38.57	SVOA	3,900 JN
20. --	Unknown	38.77	SVOA	2,400 JN

FORM-1-B

30556

*JMB*  
11/23/98  
3322



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AO

LIMS ID: 97-18065

Matrix: Sediment

Data Release Authorized: *WP*

Reported: 11/20/97

Sample No: 9739 4746

WR-SD- SD112- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.1%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	640
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	25
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

09557

3378

JMB  
1/23/99



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T971AO  
LIMS ID: 97-18065  
Matrix: Sediment  
Data Release Authorized: *EWB*  
Reported: 11/20/97

Sample No: 9739 4746  
WR-SD- SD112-0000  
QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/11/97  
Instrument: finn8  
GPC Cleanup: YES

Sample Amount: 51.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 51.1%  
pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	26
100-01-6	4-Nitroaniline	-97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	150
86-74-8	Carbazole	19 U
120-12-7	Anthracene	21
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	370
129-00-0	Pyrene	270
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	81
117-81-7	bis(2-Ethylhexyl)phthalate	130
218-01-9	Chrysene	110
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	65
207-08-9	Benzo(k)fluoranthene	76
50-32-8	Benzo(a)pyrene	71
193-39-5	Indeno(1,2,3-cd)pyrene	49
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	37

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.8%	d5-Phenol	62.1%
2-Fluorobiphenyl	69.7%	2-Fluorophenol	55.2%
d14-p-Terphenyl	88.0%	2,4,6-Tribromophenol	120%
d4-1,2-Dichlorobenzene	45.1%	d4-2-Chlorophenol	53.1%

FORM-1

00558

3370

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4746  
WR-SD- SD112-0000  
Lab Sample ID: T971AO QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18065 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *BVB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	6.15	SVOA	1,200 JN
2. --	Unknown_Organic_Acid_____	6.60	SVOA	1,300 JN
3. 103-82-2	Benzeneacetic_acid_____	14.30	SVOA	1,700 JN
4. 1002-84-2	Pentadecanoic_acid_____	22.95	SVOA	530 JN
5. --	Unknown_____	23.07	SVOA	480 JN
6. --	Unknown_____	23.87	SVOA	270 JN
7. 2091-29-4	9-Hexadecenoic_acid_____	24.50	SVOA	890 JN
8. --	Unknown_____	24.60	SVOA	360 JN
9. 57-10-3	Hexadecanoic_acid_____	24.77	SVOA	730 JN
10. --	Unknown_____	26.85	SVOA	880 JN
11. --	Unknown_Alkyl_PNA_____	27.80	SVOA	570 JN
12. --	Unknown_____	32.07	SVOA	360 JN
13. --	Unknown_____	32.27	SVOA	350 JN
14. 57-88-5	Cholesterol_____	36.58	SVOA	370 JN
15. 80-97-7	Cholestanol_____	36.67	SVOA	330 JN
16. --	Unknown_____	36.98	SVOA	450 JN
17. 4651-51-8	Ergost-5-en-3-ol,_(3.beta)	37.45	SVOA	420 JN
18. --	Unknown_____	38.12	SVOA	2,200 JN
19. --	Unknown_____	38.55	SVOA	1,000 JN
20. --	Unknown_____	38.73	SVOA	530 JN

FORM-1-B

00559

3980

JMB  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AP

LIMS ID: 97-18066

Matrix: Sediment

Data Release Authorized: *RWB*

Reported: 11/20/97

Sample No: 9739 4747

WR-SD- SD113-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.3%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	1,100
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	21
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	26
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00560

3433

JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AP

LIMS ID: 97-18066

Matrix: Sediment

Data Release Authorized: *exp*

Reported: 11/20/97

Sample No: 9739 4747

WR-SD-SD113-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.3%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	29
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	150
86-74-8	Carbazole	20 U
120-12-7	Anthracene	31
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	180
129-00-0	Pyrene	150
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	49
117-81-7	bis(2-Ethylhexyl)phthalate	210
218-01-9	Chrysene	72
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	45
207-08-9	Benzo(k)fluoranthene	51
50-32-8	Benzo(a)pyrene	48
193-39-5	Indeno(1,2,3-cd)pyrene	30
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	25

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	75.2%	d5-Phenol	69.1%
2-Fluorobiphenyl	69.8%	2-Fluorophenol	62.8%
d14-p-Terphenyl	88.6%	2,4,6-Tribromophenol	110%
d4-1,2-Dichlorobenzene	54.0%	d4-2-Chlorophenol	62.1%

FORM-1

39561

3434

JMB  
123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4747  
WR-SD- SD113 - 0000  
Lab Sample ID: T971AP QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18066 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *MB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	6.72	SVOA	1,500 JN
2. 544-63-8	Tetradecanoic_acid_____	22.10	SVOA	420 JN
3. 1002-84-2	Pentadecanoic_acid_____	22.98	SVOA	370 JN
4. --	Unknown_____	23.12	SVOA	740 JN
5. --	Unknown_____	23.87	SVOA	370 JN
6. --	Unknown_____	24.57	SVOA	1,700 JN
7. --	Unknown_____	24.67	SVOA	670 JN
8. 57-10-3	Hexadecanoic_acid_____	24.83	SVOA	1,500 JN
9. --	Unknown_____	25.28	SVOA	350 JN
10. --	Unknown_____	25.60	SVOA	330 JN
11. 112-80-1	Oleic_Acid_____	26.95	SVOA	1,300 JN
12. --	Unknown_Alkyl_PNA_____	27.80	SVOA	370 JN
13. --	Unknown_____	36.27	SVOA	620 JN
14. 57-88-5	Cholesterol_____	36.60	SVOA	1,100 JN
15. --	Unknown_____	37.00	SVOA	590 JN
16. 4651-51-8	Ergost-5-en-3-ol,_(3.beta.	37.47	SVOA	450 JN
17. 83-47-6	.gamma.-Sitosterol_____	38.15	SVOA	2,900 JN
18. 638-95-9	.alpha.-Amyrin_____	38.42	SVOA	940 JN
19. --	Unknown_____	38.57	SVOA	960 JN
20. --	Unknown_____	38.77	SVOA	540 JN

FORM-1-B

00562

3435

*MB*  
12398



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AQ

LIMS ID: 97-18067

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/21/97

Sample No: 9739 4748

WR-SD- SD114- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 21.2%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	23
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

3400

FORM-1

00563

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AQ

LIMS ID: 97-18067

Matrix: Sediment

Data Release Authorized: *OKP*

Reported: 11/21/97

Sample No: 9739 4748

WR-SD-SD114-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 21.2%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	37
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 <i>YR</i>
85-01-8	Phenanthrene	180
86-74-8	Carbazole	21 <i>MN</i>
120-12-7	Anthracene	27 <i>MN</i>
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	250
129-00-0	Pyrene	260
85-68-7	Butylbenzylphthalate	120
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	140
117-81-7	bis(2-Ethylhexyl)phthalate	250
218-01-9	Chrysene	240
117-84-0	Di-n-Octyl phthalate	110
205-99-2	Benzo(b)fluoranthene	200
207-08-9	Benzo(k)fluoranthene	180
50-32-8	Benzo(a)pyrene	180
193-39-5	Indeno(1,2,3-cd)pyrene	160
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	130

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	72.8%	d5-Phenol	68.4%
2-Fluorobiphenyl	81.6%	2-Fluorophenol	51.0%
d14-p-Terphenyl	65.9%	2,4,6-Tribromophenol	61.0%
d4-1,2-Dichlorobenzene	69.0%	d4-2-Chlorophenol	66.0%

3491

FORM-1

39561

JMB  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4748

WR-SD- SD114 - 0000

Lab Sample ID: T971AQ  
LIMS ID: 97-18067  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *BBP*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	15.73	SVOA	270 JN
2.	-- Unknown_Cycloalkane_____	16.27	SVOA	250 JN
3.	-- Unknown_____	16.93	SVOA	1,100 JN
4.	-- Unknown_____	17.08	SVOA	290 JN
5.	-- Unknown_Cycloalkane_____	17.30	SVOA	430 JN
6.	-- Unknown_____	18.13	SVOA	450 JN
7.	-- Unknown_____	18.30	SVOA	480 JN
8.	-- Naphthalene,_Trimethyl_Is	18.72	SVOA	970 JN
9.	-- Unknown_Cycloalkane+_C.E	20.60	SVOA	370 JN
10.	-- Unknown_Cycloalkane+_C.E	20.85	SVOA	430 JN
11.	-- Unknown_____	23.68	SVOA	350 JN
12.	57-10-3 Hexadecanoic_acid_____	24.82	SVOA	600 JN
13.	-- Unknown_____	26.55	SVOA	360 JN
14.	57-11-4 Octadecanoic_acid_____	27.18	SVOA	290 JN
15.	-- Unknown_____	28.15	SVOA	280 JN
16.	-- Octadecenal_Iso_____	34.00	SVOA	430 JN
17.	-- Unknown_____	38.25	SVOA	500 JN
18.	559-70-6 .beta.-Amyrin_____	38.52	SVOA	260 JN
19.	-- Unknown_____	38.60	SVOA	300 JN
20.	_____	_____	_____	_____

FORM-1-B

3492

00565

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AR

LIMS ID: 97-18068

Matrix: Sediment

Data Release Authorized: *ENB*

Reported: 11/20/97

Sample No: 9739 4749

WR-SD- SD115- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.6%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	630
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

99566

3543

JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AR

LIMS ID: 97-18068

Matrix: Sediment

Data Release Authorized: *AMW*

Reported: 11/20/97

Sample No: 9739 4749

WR-SD- SD115 - 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/11/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.6%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	37
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	74
129-00-0	Pyrene	69
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	24
117-81-7	bis(2-Ethylhexyl)phthalate	120
218-01-9	Chrysene	40
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	26
207-08-9	Benzo(k)fluoranthene	25
50-32-8	Benzo(a)pyrene	32
193-39-5	Indeno(1,2,3-cd)pyrene	22
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.4%	d5-Phenol	62.5%
2-Fluorobiphenyl	64.1%	2-Fluorophenol	60.6%
d14-p-Terphenyl	80.4%	2,4,6-Tribromophenol	106%
d4-1,2-Dichlorobenzene	48.7%	d4-2-Chlorophenol	56.4%

3549

FORM-1

00557

JMB  
1123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4749

WR-SD- SD115-0000

Lab Sample ID: T971AR  
LIMS ID: 97-18068  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *BWB*  
Reported: 11/20/97

Date Analyzed: 11/11/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.03	SVOA	570 JN
2. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.15	SVOA	340 JN
3. 116-53-0	Butanoic_acid,_2-methyl_-	6.43	SVOA	370 JN
4. 103-82-2	Benzeneacetic_acid_____	14.22	SVOA	920 JN
5. 1002-84-2	Pentadecanoic_acid_____	22.92	SVOA	430 JN
6. --	Unknown_____	23.05	SVOA	390 JN
7. --	Unknown_____	24.48	SVOA	890 JN
8. 57-10-3	Hexadecanoic_acid_____	24.73	SVOA	580 JN
9. 112-80-1	Oleic_Acid_____	26.88	SVOA	1,300 JN
10. --	Unknown_Alkyl_PNA_____	27.80	SVOA	1,300 JN
11. --	Unknown_____	32.07	SVOA	380 JN
12. --	Unknown_Aldehyde_____	33.90	SVOA	780 JN
13. --	Unknown_____	34.23	SVOA	350 JN
14. 57-88-5	Cholesterol_____	36.57	SVOA	630 JN
15. --	Unknown_____	36.97	SVOA	640 JN
16. 26047-31-4	Ergost-7-en-3-ol,_ (3. $\beta$ )	37.45	SVOA	480 JN
17. --	Unknown_____	38.18	SVOA	1,700 JN
18. 559-70-6	. $\beta$ -Amyrin_____	38.38	SVOA	880 JN
19. --	Unknown_____	38.53	SVOA	1,600 JN
20. --	Unknown_____	38.73	SVOA	850 JN

3550

FORM-1-B

00568

JMB  
1123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AS

LIMS ID: 97-18069

Matrix: Sediment

Data Release Authorized: *BWS*

Reported: 11/21/97

Sample No: 9739 4750

WR-SD- SD117- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.1%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	210
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	24
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

3597

FORM-1

59553

JMB  
123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AS

LIMS ID: 97-18069

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/21/97

Sample No: 9739 4750

WR-SD- SD117-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 33.1%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	90
86-74-8	Carbazole	20 U
120-12-7	Anthracene	24
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	100
129-00-0	Pyrene	160
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	58
117-81-7	bis(2-Ethylhexyl)phthalate	63
218-01-9	Chrysene	74
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	44
207-08-9	Benzo(k)fluoranthene	64
50-32-8	Benzo(a)pyrene	67
193-39-5	Indeno(1,2,3-cd)pyrene	43
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	47

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	66.1%	d5-Phenol	68.4%
2-Fluorobiphenyl	78.0%	2-Fluorophenol	52.5%
d14-p-Terphenyl	85.7%	2,4,6-Tribromophenol	79.5%
d4-1,2-Dichlorobenzene	62.5%	d4-2-Chlorophenol	66.0%

FORM-1

3598

39570

*JMB*  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4750  
WR-SD- SD117-0000  
Lab Sample ID: T971AS QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18069 Project: 1001-006  
Matrix: Sediment Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *BMB*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 103-82-2	Benzeneacetic acid	14.13	SVOA	300 JN
2. 483-77-2	Naphthalene, 1,2,3,4-tetr	18.60	SVOA	100 JN
3. 544-63-8	Tetradecanoic acid	22.08	SVOA	100 JN
4. 1002-84-2	Pentadecanoic acid	22.95	SVOA	97 JN
5. --	Unknown	24.23	SVOA	270 JN
6. --	Unknown	24.75	SVOA	2,800 JN
7. --	Unknown	24.95	SVOA	130 JN
8. --	Unknown	25.07	SVOA	190 JN
9. --	Unknown	25.23	SVOA	100 JN
10. --	Unknown	26.52	SVOA	770 JN
11. --	Unknown	28.47	SVOA	130,000 JN
12. --	Unknown	30.75	SVOA	2,200 JN
13. 112-85-6	Docosanoic acid	31.50	SVOA	720 JN
14. --	Unknown_Acid_Ester	31.73	SVOA	1,600 JN
15. --	Unknown	32.38	SVOA	350 JN
16. --	Unknown	33.97	SVOA	620 JN
17. 14982-53-7	Cholestane	34.28	SVOA	500 JN
18. --	Unknown	37.50	SVOA	580 JN
19. --	Unknown	38.20	SVOA	1,500 JN
20. --	Unknown	38.62	SVOA	400 JN

3599

FORM-1-B

00571

JMB  
12398



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AT

LIMS ID: 97-18070

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/21/97

Sample No: 9739 4751

WR-SD-SD117-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 32.9%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	360
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	35
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	25
51-28-5	2,4-Dinitrophenol	200 U J
100-02-7	4-Nitrophenol	99 U J
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

3651

FORM-1

09572

*JMB*  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AT

LIMS ID: 97-18070

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/21/97

Sample No: 9739 4751

WR-SD- SD117- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 32.9%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	110
86-74-8	Carbazole	20 U
120-12-7	Anthracene	21
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	180
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	66
117-81-7	bis(2-Ethylhexyl)phthalate	180
218-01-9	Chrysene	86
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	63
207-08-9	Benzo(k)fluoranthene	58
50-32-8	Benzo(a)pyrene	77
193-39-5	Indeno(1,2,3-cd)pyrene	58
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	62

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	73.4%	d5-Phenol	78.1%
2-Fluorobiphenyl	85.5%	2-Fluorophenol	61.5%
d14-p-Terphenyl	88.8%	2,4,6-Tribromophenol	84.9%
d4-1,2-Dichlorobenzene	71.4%	d4-2-Chlorophenol	72.9%

FORM-1

30573

305?

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4751

WR-SD-SD117-1000

Lab Sample ID: T971AT  
LIMS ID: 97-18070  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *anb*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Naphthalene, Dimethyl Iso	16.93	SVOA	180 J N
2. 156-38-7	Benzeneacetic acid, 4-hyd	19.17	SVOA	200 J N
3. 544-63-8	Tetradecanoic acid	22.12	SVOA	140 J N
4. --	Unknown_Organic_Acid	22.97	SVOA	180 J N
5. --	Unknown_PNA + C.E.	24.25	SVOA	200 J N
6. --	Unknown	24.52	SVOA	140 J N
7. 57-10-3	Hexadecanoic acid	24.78	SVOA	360 J N
8. --	Unknown	25.07	SVOA	120 J N
9. --	Unknown	25.53	SVOA	120 J N
10. 112-80-1	Oleic Acid	26.90	SVOA	340 J N
11. --	Unknown_Alkyl_PNA	27.95	SVOA	3,300 J N
12. --	Unknown	29.92	SVOA	390 J N
13. 112-85-6	Docosanoic acid	31.50	SVOA	520 J N
14. --	Unknown_Acid_Ester	31.73	SVOA	510 J N
15. --	Unknown	32.38	SVOA	330 J N
16. --	Unknown_Aldehyde	34.02	SVOA	750 J N
17. 481-21-0	Cholestane	34.28	SVOA	470 J N
18. --	Unknown	38.27	SVOA	1,200 J N
19. --	Unknown	38.62	SVOA	450 J N
20. -----	-----	-----	-----	-----

FORM-1-B

3653

99574

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AU

LIMS ID: 97-18071

Matrix: Sediment

Data Release Authorized: *OKS*

Reported: 11/21/97

Sample No: 9739 4752

WR-SD-SD118-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 32.7%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	88
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	25
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 J
51-28-5	2,4-Dinitrophenol	200 U J
100-02-7	4-Nitrophenol	99 U J
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

FORM-1

3704

90575

JMB  
11-23-1998



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AU

LIMS ID: 97-18071

Matrix: Sediment

Data Release Authorized: *MAP*

Reported: 11/21/97

Sample No: 9739 4752

WR- SD- SD118- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 32.7%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	290
86-74-8	Carbazole	20 U
120-12-7	Anthracene	110
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	260
129-00-0	Pyrene	460
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	200
117-81-7	bis(2-Ethylhexyl)phthalate	59
218-01-9	Chrysene	260
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	100
207-08-9	Benzo(k)fluoranthene	170
50-32-8	Benzo(a)pyrene	220
193-39-5	Indeno(1,2,3-cd)pyrene	97
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	98

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	66.4%	d5-Phenol	64.6%
2-Fluorobiphenyl	78.4%	2-Fluorophenol	49.6%
d14-p-Terphenyl	83.7%	2,4,6-Tribromophenol	80.3%
d4-1,2-Dichlorobenzene	65.7%	d4-2-Chlorophenol	62.5%

FORM-1

30576

3705

JMB  
12398



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4752

tWR-SD- SD118-00003

Lab Sample ID: T971AU  
LIMS ID: 97-18071  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *GB*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	15.08	SVOA	160 J N
2.	-- Unknown _____	16.95	SVOA	210 J N
3.	-- Naphthalene,_Trimethyl_Is	18.72	SVOA	190 J N
4.	-- Unknown _____	19.88	SVOA	190 J N
5.	-- Unknown_Cycloalkane_____	20.57	SVOA	120 J N
6.	-- Unknown_Cycloalkane_____	20.82	SVOA	150 J N
7.	-- Unknown_PNA+_C.E._____	23.50	SVOA	150 J N
8.	-- Unknown_Alkyl_PNA_____	24.00	SVOA	140 J N
9.	-- Unknown_Alkyl_PNA_____	24.33	SVOA	190 J N
10.	57-10-3 Hexadecanoic_acid_____	24.80	SVOA	330 J N
11.	-- Unknown _____	25.10	SVOA	120 J N
12.	-- Unknown _____	25.57	SVOA	110 J N
13.	-- Unknown _____	26.97	SVOA	120 J N
14.	-- Unknown_Alkyl_PNA+_C.E._____	27.93	SVOA	320 J N
15.	-- Unknown_PNA+_C.E._____	28.17	SVOA	160 J N
16.	-- Unknown_PNA+_C.E._____	29.90	SVOA	140 J N
17.	-- Unknown _____	33.97	SVOA	150 J N
18.	-- Unknown _____	38.28	SVOA	240 J N
19.	-- Unknown _____	38.63	SVOA	110 J N
20.	_____	_____	_____	_____

FORM-1-B

09577

3706

*MB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AV

LIMS ID: 97-18072

Matrix: Sediment

Data Release Authorized: *MMB*

Reported: 11/21/97

Sample No: 9739 4753

WR-SD- SD133- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.9%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	510
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	32
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	94
51-28-5	2,4-Dinitrophenol	190 U <i>J</i>
100-02-7	4-Nitrophenol	96 U <i>J</i>
132-64-9	Dibenzofuran	67
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00578

*JMB*  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AV

LIMS ID: 97-18072

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/21/97

Sample No: 9739 4753

WR-SD- SD133-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.9%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	100
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	580
86-74-8	Carbazole	36
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	37
206-44-0	Fluoranthene	530
129-00-0	Pyrene	690
85-68-7	Butylbenzylphthalate	32
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	400
117-81-7	bis(2-Ethylhexyl)phthalate	650
218-01-9	Chrysene	480
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	330
207-08-9	Benzo(k)fluoranthene	390
50-32-8	Benzo(a)pyrene	380
193-39-5	Indeno(1,2,3-cd)pyrene	240
53-70-3	Dibenz(a,h)anthracene	38
191-24-2	Benzo(g,h,i)perylene	210

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	68.7%	d5-Phenol	71.2%
2-Fluorobiphenyl	77.6%	2-Fluorophenol	57.9%
d14-p-Terphenyl	82.9%	2,4,6-Tribromophenol	79.6%
d4-1,2-Dichlorobenzene	66.2%	d4-2-Chlorophenol	70.4%

: 3757.

FORM-1

9957.)

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4753

WR-SD- SD133-0000

Lab Sample ID: T971AV  
LIMS ID: 97-18072  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *GRW*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.13	SVOA	910 JN
2. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.27	SVOA	290 JN
3. --	Unknown_Organic_Acid_____	6.80	SVOA	270 JN
4. --	Unknown_____	8.87	SVOA	280 JN
5. 140-66-9	Phenol,_4-(1,1,3,3-tetram	19.87	SVOA	110 JN
6. --	Unknown_____	20.68	SVOA	120 JN
7. --	2,4-Diphenyl-4-methyl-2(Z	21.53	SVOA	260 JN
8. --	Unknown_____	23.45	SVOA	310 JN
9. --	Unknown_Alkyl_PNA_____	23.97	SVOA	180 JN
10. 612-94-2	Naphthalene,_2-phenyl_-	24.97	SVOA	200 JN
11. --	Unknown_____	25.55	SVOA	240 JN
12. --	Phenanthrene,_Dimethyl_Is	25.77	SVOA	180 JN
13. --	Unknown_____	26.53	SVOA	180 JN
14. --	Unknown_____	27.12	SVOA	200 JN
15. --	Unknown_PNA+_C.E._____	27.90	SVOA	240 JN
16. --	Unknown_PNA+_C.E._____	28.17	SVOA	180 JN
17. --	Unknown_____	32.15	SVOA	120 JN
18. 563-04-2	Phosphoric_acid,_tris(3-m	32.43	SVOA	120 JN
19. --	Unknown_PNA_____	34.38	SVOA	130 JN
20. --	Unknown_____	38.23	SVOA	260 JN

FORM-1-B

3758

30580

JMB  
123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AX

LIMS ID: 97-18073

Matrix: Sediment

Data Release Authorized: *AM*

Reported: 11/21/97

Sample No: 9739 4755

WR-SD- SD132-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.0%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	550
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U <i>J</i>
100-02-7	4-Nitrophenol	98 U <i>J</i>
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00531

3816  
JMB  
123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AX

LIMS ID: 97-18073

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/21/97

Sample No: 9739 4755

WR-SD-SD132-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.0%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U
85-01-8	Phenanthrene	32
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	43
129-00-0	Pyrene	50
85-68-7	Butylbenzylphthalate	55
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	29
117-81-7	bis(2-Ethylhexyl)phthalate	490
218-01-9	Chrysene	44
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	29
207-08-9	Benzo(k)fluoranthene	35
50-32-8	Benzo(a)pyrene	39
193-39-5	Indeno(1,2,3-cd)pyrene	22
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	25

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	60.6%	d5-Phenol	67.3%
2-Fluorobiphenyl	73.3%	2-Fluorophenol	51.8%
d14-p-Terphenyl	82.9%	2,4,6-Tribromophenol	89.9%
d4-1,2-Dichlorobenzene	65.1%	d4-2-Chlorophenol	63.9%

FORM-1

39532

3817

JMB  
1123F



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: T971AX  
LIMS ID: 97-18073  
Matrix: Sediment

Sample No: 9739 4755  
QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: 648  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_-	6.07	SVOA	300 JN
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.47	SVOA	250 JN
3. 103-82-2	Benzeneacetic_acid_____	14.35	SVOA	1,100 JN
4. 544-63-8	Tetradecanoic_acid_____	22.15	SVOA	150 JN
5. 1002-84-2	Pentadecanoic_acid_____	23.02	SVOA	240 JN
6. --	Unknown_____	24.57	SVOA	440 JN
7. --	Unknown_____	24.68	SVOA	170 JN
8. 57-10-3	Hexadecanoic_acid_____	24.83	SVOA	480 JN
9. --	Unknown_____	25.20	SVOA	210 JN
10. --	Unknown_____	26.50	SVOA	240 JN
11. 112-80-1	Oleic_Acid_____	26.93	SVOA	530 JN
12. 57-11-4	Octadecanoic_acid_____	27.20	SVOA	280 JN
13. --	Unknown_Alkyl_PNA_+ C.E._____	27.90	SVOA	330 JN
14. --	Unknown_____	29.92	SVOA	220 JN
15. 56803-37-3	Phosphoric_acid,_ (1,1-dim	33.20	SVOA	230 JN
16. --	Unknown_____	33.95	SVOA	350 JN
17. 57-88-5	Cholesterol_____	36.73	SVOA	260 JN
18. --	Unknown_____	38.27	SVOA	1,100 JN
19. --	Unknown_____	38.53	SVOA	410 JN
20. --	Unknown_____	38.62	SVOA	440 JN

FORM-1-B

99583

3818

JMB  
1231



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AY

LIMS ID: 97-18074

Matrix: Sediment

Data Release Authorized: *ANS*

Reported: 11/21/97

Sample No: 9739 4756

WR-SD- SD 020-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 45.3%  
pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	370
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20
51-28-5	2,4-Dinitrophenol	190 U <sup>J</sup>
100-02-7	4-Nitrophenol	96 U <sup>J</sup>
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

30584

3868

JMB  
12319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T971AY  
LIMS ID: 97-18074  
Matrix: Sediment  
Data Release Authorized: *OKP*  
Reported: 11/21/97

Sample No: 9739 4756  
WR-SD-SD 020-0000  
QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/23/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/12/97  
Instrument: finn8  
GPC Cleanup: YES

Sample Amount: 52.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 45.3%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	88
86-74-8	Carbazole	19 U
120-12-7	Anthracene	33
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	96
129-00-0	Pyrene	120
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	57
117-81-7	bis(2-Ethylhexyl)phthalate	120
218-01-9	Chrysene	82
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	58
207-08-9	Benzo(k)fluoranthene	66
50-32-8	Benzo(a)pyrene	78
193-39-5	Indeno(1,2,3-cd)pyrene	61
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	49

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	64.5%	d5-Phenol	71.3%
2-Fluorobiphenyl	74.9%	2-Fluorophenol	52.3%
d14-p-Terphenyl	89.0%	2,4,6-Tribromophenol	78.9%
d4-1,2-Dichlorobenzene	65.3%	d4-2-Chlorophenol	67.9%

3869

FORM-1

99585

JMB  
1231



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4756 WR-SD- SD020-0000  
Lab Sample ID: T971AY QC Report No: T971-Roy F. Weston  
LIMS ID: 97-18074 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 09/23/97  
Date Received: 09/27/97  
Data Release Authorized: *ONP*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_	6.05	SVOA	930 JN
2. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.27	SVOA	440 JNP
3. 103-82-2	Benzeneacetic_acid	14.30	SVOA	760 JN
4. 156-38-7	Benzeneacetic_acid,_4-hyd	19.17	SVOA	130 JN
5. 544-63-8	Tetradecanoic_acid	22.12	SVOA	130 JN
6. --	Unknown	23.00	SVOA	280 J N
7. --	Unknown	23.13	SVOA	290 J N
8. 1002-84-2	Pentadecanoic_acid	23.47	SVOA	130 JN
9. 57-10-3	Hexadecanoic_acid	24.30	SVOA	160 JN
10. --	Unknown	24.57	SVOA	470 J N
11. --	Unknown	24.67	SVOA	200 J N
12. 57-10-3	Hexadecanoic_acid	24.82	SVOA	500 JN
13. 112-80-1	Oleic_Acid	26.97	SVOA	1,100 JN
14. --	Unknown_Alkyl_PNA + C.E.	27.90	SVOA	650 J N
15. --	Unknown_Aldehyde	34.00	SVOA	950 J N
16. --	Unknown	36.40	SVOA	630 J N
17. --	Unknown	37.95	SVOA	430 J N
18. --	Unknown	38.22	SVOA	2,900 J N
19. --	Unknown	38.53	SVOA	980 J N
20. --	Unknown	38.62	SVOA	1,200 J N

FORM-1-B

3870

99586

JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971AZ

LIMS ID: 97-18075

Matrix: Sediment

Data Release Authorized: *OND*

Reported: 11/24/97

Sample No: 9739 4758

WR-SD- SD 138-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.7%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	420
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00537

3919

JMB  
123



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971AZ

LIMS ID: 97-18075

Matrix: Sediment

Data Release Authorized: *onb*

Reported: 11/24/97

Sample No: 9739 4758

WR-SD- SD138-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.7%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	19 U
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	34
129-00-0	Pyrene	32
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	19 U
117-81-7	bis(2-Ethylhexyl)phthalate	120
218-01-9	Chrysene	25
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	22
207-08-9	Benzo(k)fluoranthene	19 U
50-32-8	Benzo(a)pyrene	20
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.6%	d5-Phenol	66.1%
2-Fluorobiphenyl	76.2%	2-Fluorophenol	52.3%
d14-p-Terphenyl	75.7%	2,4,6-Tribromophenol	99.6%
d4-1,2-Dichlorobenzene	62.0%	d4-2-Chlorophenol	62.6%

FORM-1

39538

:3920

JMB  
1231a



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4758

WR-SD- SD138-0000

Lab Sample ID: T971AZ  
LIMS ID: 97-18075  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *ONB*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 106-42-3	Xylene_Iso	5.30	SVOA	190 JN
2. 503-74-2	Butanoic_acid,_3-methyl-	5.63	SVOA	260 JN
3. 79-34-5	Ethane,_1,1,2,2-tetrachlo	5.93	SVOA	900 JN
4. --	Unknown	6.40	SVOA	220 J N
5. 103-82-2	Benzeneacetic_acid	13.97	SVOA	760 JN
6. --	Benzaldehyde,_Hydroxy_Iso	15.77	SVOA	81 J N
7. 156-38-7	Benzeneacetic_acid,_4-hyd	18.83	SVOA	120 JN
8. --	Unknown	22.63	SVOA	110 J N
9. 5746-58-7	Tetradecanoic_acid,_12-me	22.75	SVOA	130 JN
10. 57-10-3	Hexadecanoic_acid	24.43	SVOA	230 JN
11. --	Unknown	26.60	SVOA	320 J N
12. --	Unknown_Alkyl_PNA	27.52	SVOA	230 J N
13. --	Unknown	31.78	SVOA	170 J N
14. --	Unknown	31.98	SVOA	240 J N
15. 57-88-5	Cholesterol	36.28	SVOA	500 JN
16. --	Unknown	37.87	SVOA	1,900 J N
17. --	Unknown	38.12	SVOA	580 J N
18. --	Unknown	38.27	SVOA	880 J N
19. --	Unknown	38.45	SVOA	450 J N
20. 1058-61-3	Stigmast-4-en-3-one	38.80	SVOA	200 JN



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BA

LIMS ID: 97-18076

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/21/97

Sample No: 9739 4759

WR-SD- SD14S- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 41.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 36.5%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	24 U
111-44-4	Bis-(2-Chloroethyl) Ether	48 U
95-57-8	2-Chlorophenol	24 U
541-73-1	1,3-Dichlorobenzene	24 U
106-46-7	1,4-Dichlorobenzene	24 U
100-51-6	Benzyl Alcohol	24 U
95-50-1	1,2-Dichlorobenzene	24 U
95-48-7	2-Methylphenol	24 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	24 U
106-44-5	4-Methylphenol	350
621-64-7	N-Nitroso-Di-N-Propylamine	48 U
67-72-1	Hexachloroethane	24 U
98-95-3	Nitrobenzene	24 U
78-59-1	Isophorone	24 U
88-75-5	2-Nitrophenol	120 U
105-67-9	2,4-Dimethylphenol	24 U
65-85-0	Benzoic Acid	240 U
111-91-1	bis(2-Chloroethoxy) Methane	24 U
120-83-2	2,4-Dichlorophenol	73 U
120-82-1	1,2,4-Trichlorobenzene	24 U
91-20-3	Naphthalene	24 U
106-47-8	4-Chloroaniline	73 U
87-68-3	Hexachlorobutadiene	24 U
59-50-7	4-Chloro-3-methylphenol	48 U
91-57-6	2-Methylnaphthalene	24 U
77-47-4	Hexachlorocyclopentadiene	120 U
88-06-2	2,4,6-Trichlorophenol	120 U
95-95-4	2,4,5-Trichlorophenol	120 U
91-58-7	2-Chloronaphthalene	24 U
88-74-4	2-Nitroaniline	120 U
131-11-3	Dimethylphthalate	24 U
208-96-8	Acenaphthylene	24 U
99-09-2	3-Nitroaniline	150 U
83-32-9	Acenaphthene	24 U
51-28-5	2,4-Dinitrophenol	240 U
100-02-7	4-Nitrophenol	120 U
132-64-9	Dibenzofuran	24 U
606-20-2	2,6-Dinitrotoluene	120 U

FORM-1

00590

-3964

JMB  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BA

LIMS ID: 97-18076

Matrix: Sediment

Data Release Authorized: *and*

Reported: 11/21/97

Sample No: 9739 4759

WR-SD- SD145- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 41.3 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 36.5%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	120 U
84-66-2	Diethylphthalate	24 U
7005-72-3	4-Chlorophenyl-phenylether	24 U
86-73-7	Fluorene	24 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	240 U
86-30-6	N-Nitrosodiphenylamine	24 U
101-55-3	4-Bromophenyl-phenylether	24 U
118-74-1	Hexachlorobenzene	24 U
87-86-5	Pentachlorophenol	120 U
85-01-8	Phenanthrene	24 U
86-74-8	Carbazole	24 U
120-12-7	Anthracene	24 U
84-74-2	Di-n-Butylphthalate	24 U
206-44-0	Fluoranthene	31
129-00-0	Pyrene	47
85-68-7	Butylbenzylphthalate	24 U
91-94-1	3,3'-Dichlorobenzidine	120 U
56-55-3	Benzo(a)anthracene	24 J
117-81-7	bis(2-Ethylhexyl)phthalate	140
218-01-9	Chrysene	39
117-84-0	Di-n-Octyl phthalate	24 U
205-99-2	Benzo(b)fluoranthene	34
207-08-9	Benzo(k)fluoranthene	37
50-32-8	Benzo(a)pyrene	38
193-39-5	Indeno(1,2,3-cd)pyrene	30
53-70-3	Dibenz(a,h)anthracene	24 U
191-24-2	Benzo(g,h,i)perylene	30

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.9%	d5-Phenol	67.5%
2-Fluorobiphenyl	78.4%	2-Fluorophenol	47.7%
d14-p-Terphenyl	89.0%	2,4,6-Tribromophenol	92.2%
d4-1,2-Dichlorobenzene	55.1%	d4-2-Chlorophenol	60.9%

FORM-1

00591

3965

JMB  
123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4759

WR-SD- SD145-0000

Lab Sample ID: T971BA  
LIMS ID: 97-18076  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *AMP*  
Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_-	6.13	SVOA	660 JN
2. 103-82-2	Benzeneacetic_acid_____	14.27	SVOA	790 JN
3. --	Benzaldehyde,_Hydroxy_Iso	16.07	SVOA	110 JN
4. 156-38-7	Benzeneacetic_acid,_4-hyd	19.15	SVOA	130 JN
5. --	Unknown_____	21.60	SVOA	99 JN
6. --	Unknown_____	21.88	SVOA	100 JN
7. 544-63-8	Tetradecanoic_acid_____	22.12	SVOA	150 JN
8. 1002-84-2	Pentadecanoic_acid_____	23.00	SVOA	260 JN
9. --	Unknown_Organic_Acid_____	23.12	SVOA	230 JN
10. --	Unknown_____	23.67	SVOA	100 JN
11. --	Unknown_Organic_Acid_____	24.28	SVOA	120 JN
12. --	Unknown_____	24.55	SVOA	540 JN
13. --	Unknown_____	24.65	SVOA	190 JN
14. 57-10-3	Hexadecanoic_acid_____	24.80	SVOA	500 JN
15. --	Unknown_____	25.20	SVOA	320 JN
16. 112-80-1	Oleic_Acid_____	26.95	SVOA	660 JN
17. --	Unknown_Aldehyde_____	34.00	SVOA	420 JN
18. --	Unknown_____	38.27	SVOA	1,500 JN
19. --	Unknown_____	38.53	SVOA	540 JN
20. --	Unknown_____	38.62	SVOA	790 JN

FORM-1-B

00592

3966

JML  
1234



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BB

LIMS ID: 97-18077

Matrix: Sediment

Data Release Authorized: *MWB*

Reported: 11/21/97

Sample No: 9739 4760

WR-SD- SD150-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 42.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 34.3%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	23 U
111-44-4	Bis-(2-Chloroethyl) Ether	47 U
95-57-8	2-Chlorophenol	23 U
541-73-1	1,3-Dichlorobenzene	23 U
106-46-7	1,4-Dichlorobenzene	23 U
100-51-6	Benzyl Alcohol	23 U
95-50-1	1,2-Dichlorobenzene	23 U
95-48-7	2-Methylphenol	23 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	23 U
106-44-5	4-Methylphenol	260
621-64-7	N-Nitroso-Di-N-Propylamine	47 U
67-72-1	Hexachloroethane	23 U
98-95-3	Nitrobenzene	23 U
78-59-1	Isophorone	23 U
88-75-5	2-Nitrophenol	120 U
105-67-9	2,4-Dimethylphenol	23 U
65-85-0	Benzoic Acid	230 U
111-91-1	bis(2-Chloroethoxy) Methane	23 U
120-83-2	2,4-Dichlorophenol	70 U
120-82-1	1,2,4-Trichlorobenzene	23 U
91-20-3	Naphthalene	23 U
106-47-8	4-Chloroaniline	70 U
87-68-3	Hexachlorobutadiene	23 U
59-50-7	4-Chloro-3-methylphenol	47 U
91-57-6	2-Methylnaphthalene	23 U
77-47-4	Hexachlorocyclopentadiene	120 U
88-06-2	2,4,6-Trichlorophenol	120 U
95-95-4	2,4,5-Trichlorophenol	120 U
91-58-7	2-Chloronaphthalene	23 U
88-74-4	2-Nitroaniline	120 U
131-11-3	Dimethylphthalate	23 U
208-96-8	Acenaphthylene	23 U
99-09-2	3-Nitroaniline	140 U
83-32-9	Acenaphthene	23 U
51-28-5	2,4-Dinitrophenol	230 U <i>J</i>
100-02-7	4-Nitrophenol	120 U <i>J</i>
132-64-9	Dibenzofuran	23 U
606-20-2	2,6-Dinitrotoluene	120 U

4013

FORM-1

30593

JMB  
123K8



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BB

LIMS ID: 97-18077

Matrix: Sediment

Data Release Authorized: *✓*

Reported: 11/21/97

Sample No: 9739 4760

WR-SD- SD150-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/12/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 42.9 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 34.3%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	120 U
84-66-2	Diethylphthalate	23 U
7005-72-3	4-Chlorophenyl-phenylether	23 U
86-73-7	Fluorene	23 U
100-01-6	4-Nitroaniline	120 U
534-52-1	4,6-Dinitro-2-Methylphenol	230 U
86-30-6	N-Nitrosodiphenylamine	23 U
101-55-3	4-Bromophenyl-phenylether	23 U
118-74-1	Hexachlorobenzene	23 U
87-86-5	Pentachlorophenol	120 U
85-01-8	Phenanthrene	100
86-74-8	Carbazole	23 U
120-12-7	Anthracene	23 U
84-74-2	Di-n-Butylphthalate	23 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	260
85-68-7	Butylbenzylphthalate	23 U
91-94-1	3,3'-Dichlorobenzidine	120 U
56-55-3	Benzo(a)anthracene	91
117-81-7	bis(2-Ethylhexyl)phthalate	100
218-01-9	Chrysene	150
117-84-0	Di-n-Octyl phthalate	23 U
205-99-2	Benzo(b)fluoranthene	82
207-08-9	Benzo(k)fluoranthene	96
50-32-8	Benzo(a)pyrene	140
193-39-5	Indeno(1,2,3-cd)pyrene	75
53-70-3	Dibenz(a,h)anthracene	23 U
191-24-2	Benzo(g,h,i)perylene	98

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	68.2%	d5-Phenol	70.6%
2-Fluorobiphenyl	88.1%	2-Fluorophenol	56.7%
d14-p-Terphenyl	86.8%	2,4,6-Tribromophenol	73.7%
d4-1,2-Dichlorobenzene	71.8%	d4-2-Chlorophenol	71.5%

FORM-1

00594

JMB  
123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4760

WR-SD-SD150-0000

Lab Sample ID: T971BB

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18077

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/24/97

Date Received: 09/27/97

Data Release Authorized: *BNP*

Reported: 11/21/97

Date Analyzed: 11/12/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	5.97	SVOA	400 JN
2. 103-82-2	Benzeneacetic_acid_____	14.20	SVOA	500 JN
3. --	Unknown_____	19.87	SVOA	120 J N
4. --	Unknown_Cycloalkane_____	20.78	SVOA	130 J N
5. --	Unknown_____	21.10	SVOA	250 J N
6. --	Unknown_____	21.67	SVOA	130 J N
7. 544-63-8	Tetradecanoic_acid_____	22.10	SVOA	120 J N
8. --	Unknown_____	23.97	SVOA	240 J N
9. 57-10-3	Hexadecanoic_acid_____	24.77	SVOA	230 J N
10. --	Unknown_____	24.97	SVOA	140 J N
11. --	Unknown_Sterol_____	27.90	SVOA	310 J N
12. --	Pyrene,_Methyl_Iso_____	28.45	SVOA	130 J N
13. --	Unknown_Sterol_____	29.13	SVOA	140 J N
14. --	Unknown_PNA + C.E._____	29.80	SVOA	130 J N
15. --	Unknown_____	32.42	SVOA	150 J N
16. 481-21-0	Cholestane_____	34.32	SVOA	260 J N
17. --	Unknown_____	35.00	SVOA	380 J N
18. --	Unknown_____	36.90	SVOA	200 J N
19. --	Unknown_____	38.28	SVOA	170 J N
20. --	Unknown_____	38.63	SVOA	220 J N

FORM-1-B

00595

4015

JMB  
12345



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BC

LIMS ID: 97-18078

Matrix: Sediment

Data Release Authorized: *GRS*

Reported: 11/24/97

Sample No: 9739 4761

WR-SD- SD 120-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.8%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	880
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

: 4964

FORM-1

39596

JMB  
112319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BC

LIMS ID: 97-18078

Matrix: Sediment

Data Release Authorized: *ewp*

Reported: 11/24/97

Sample No: 9739 4761

WR-SD-SD1Z0-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 51.8%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	25
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	56
129-00-0	Pyrene	50
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	23
117-81-7	bis(2-Ethylhexyl)phthalate	150
218-01-9	Chrysene	38
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	24
207-08-9	Benzo(k)fluoranthene	20
50-32-8	Benzo(a)pyrene	24
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.3%	d5-Phenol	67.9%
2-Fluorobiphenyl	81.3%	2-Fluorophenol	50.7%
d14-p-Terphenyl	71.5%	2,4,6-Tribromophenol	82.3%
d4-1,2-Dichlorobenzene	56.1%	d4-2-Chlorophenol	62.6%

FORM-1

39597

4065

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4761

WR-SD-SD120-0000

Lab Sample ID: T971BC

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18078

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/24/97

Date Received: 09/27/97

Data Release Authorized: *JMB*

Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid	5.92	SVOA	950 JN
2. 116-53-0	Butanoic_acid,_2-methyl-	6.35	SVOA	1,000 JN
3. 109-52-4	Pentanoic_acid	6.68	SVOA	280 JN
4. 103-82-2	Benzeneacetic_acid	14.07	SVOA	1,300 JN
5. 544-63-8	Tetradecanoic_acid	21.77	SVOA	150 JN
6. 1002-84-2	Pentadecanoic_acid	22.63	SVOA	180 JN
7. --	Unknown_Organic_Acid	22.75	SVOA	160 JN
8. --	Unknown	24.18	SVOA	420 JN
9. 57-10-3	Hexadecanoic_acid	24.43	SVOA	310 JN
10. --	Unknown	26.58	SVOA	250 JN
11. --	Unknown_Alkyl_PNA+_C.E.	27.50	SVOA	310 JN
12. --	Unknown	31.77	SVOA	220 JN
13. --	Unknown_Sterol	35.93	SVOA	470 JN
14. 57-88-5	Cholesterol	36.27	SVOA	660 JN
15. --	Unknown_Sterol	36.68	SVOA	300 JN
16. 4651-51-8	Ergost-5-en-3-ol,_ <sup>(3)</sup> .beta.	37.17	SVOA	390 JN
17. --	Unknown	37.92	SVOA	2,200 JN
18. 559-70-6	.beta.-Amyrin	38.10	SVOA	430 JN
19. --	Unknown	38.25	SVOA	1,300 JN
20. --	Unknown_Sterol	38.43	SVOA	480 JN

00598

FORM-1 B

4066

*JMB*  
12319

ANALYTICAL  
RESOURCES  
INCORPORATED



ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BD

LIMS ID: 97-18079

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/26/97

Sample No: 9739 4762

WR-SD- SD123-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.4%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	270
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

00599

FORM-1

4113

JMB  
11/23/97

ANALYTICAL  
RESOURCES  
INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**  
**Tentatively Identified Compounds**

Lab Sample ID: T971BD  
LIMS ID: 97-18079  
Matrix: Sediment

Sample No: 9739 4762  
WR-S D-SD123-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *JMR*  
Reported: 02/04/98

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid	6.40	SVOA	130 JN
2. --	Unknown	8.53	SVOA	240 JB R
3. 103-82-2	Benzeneacetic_acid	13.95	SVOA	530 JN
4. 156-38-7	Benzeneacetic_acid,_4-hyd	18.83	SVOA	110 JN
5. --	Unknown	22.62	SVOA	120 JN
6. --	Unknown	22.73	SVOA	130 JN
7. --	Unknown	24.17	SVOA	270 JN
8. 57-10-3	Hexadecanoic_acid	24.42	SVOA	160 JN
9. --	Unknown	24.93	SVOA	130 JN
10. --	Unknown	26.58	SVOA	210 JN
11. --	Unknown_Alkyl_PNA + C.E.	27.52	SVOA	760 JN
12. --	Unknown	29.52	SVOA	180 JN
13. --	Unknown	31.77	SVOA	160 JN
14. --	Unknown_PM + C.E.	31.98	SVOA	270 JN
15. --	Unknown	33.57	SVOA	110 JN
16. --	Unknown	36.45	SVOA	120 JN
17. --	Unknown	37.92	SVOA	1,000 JN
18. --	Unknown	38.25	SVOA	920 JN
19. --	Unknown	38.48	SVOA	160 JN
20. 1058-61-3	Stigmast-4-en-3-one	38.78	SVOA	180 JN

FORM-1-B

00000

4119A

JMB  
2/5/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BD

LIMS ID: 97-18079

Matrix: Sediment

Data Release Authorized: *WRB*

Reported: 11/26/97

Sample No: 9739 4762

WR-SD-SD123-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.4%

pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	33
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	55
129-00-0	Pyrene	46
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	20
117-81-7	bis(2-Ethylhexyl)phthalate	91
218-01-9	Chrysene	41
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	21
207-08-9	Benzo(k)fluoranthene	19
50-32-8	Benzo(a)pyrene	20
193-39-5	Indeno(1,2,3-cd)pyrene	19 U
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	19 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	69.7%	d5-Phenol	62.4%
2-Fluorobiphenyl	78.8%	2-Fluorophenol	46.8%
d14-p-Terphenyl	74.4%	2,4,6-Tribromophenol	77.3%
d4-1,2-Dichlorobenzene	57.9%	d4-2-Chlorophenol	60.1%

FORM-1

00601

4114

JMB  
17319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BE

LIMS ID: 97-18080

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/24/97

Sample No: 9739 4763

WR-SD- SD131-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.1%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	360
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

99502

4160

JMB  
1123A



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BE

LIMS ID: 97-18080

Matrix: Sediment

Data Release Authorized: *AVP*

Reported: 11/24/97

Sample No: 9739 4763

WR-SD- SD:31- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 41.1%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	39
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	78
129-00-0	Pyrene	69
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	33
117-81-7	bis(2-Ethylhexyl)phthalate	210
218-01-9	Chrysene	60
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	40
207-08-9	Benzo(k)fluoranthene	33
50-32-8	Benzo(a)pyrene	41
193-39-5	Indeno(1,2,3-cd)pyrene	24
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	28

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.9%	d5-Phenol	63.1%
2-Fluorobiphenyl	81.8%	2-Fluorophenol	45.8%
d14-p-Terphenyl	82.8%	2,4,6-Tribromophenol	97.1%
d4-1,2-Dichlorobenzene	47.5%	d4-2-Chlorophenol	58.2%

FORM-1

30303

4161  
JMB  
173K



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4763

WR-SD- SD131-0000

Lab Sample ID: T971BE

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18080

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/24/97

Date Received: 09/27/97

Data Release Authorized: *JMB*

Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane,_1,1,2,2-tetrachlo	5.93	SVOA	480 JN
2. 103-82-2	Benzeneacetic_acid_____	13.97	SVOA	800 JN
3. 544-63-8	Tetradecanoic_acid_____	21.78	SVOA	180 JN
4. 1002-84-2	Pentadecanoic_acid_____	22.65	SVOA	300 JN
5. 5746-58-7	Tetradecanoic_acid,_12-me	22.77	SVOA	210 JN
6. --	Unknown_____	24.18	SVOA	480 J N
7. --	Unknown_____	24.30	SVOA	180 J N
8. 57-10-3	Hexadecanoic_acid_____	24.45	SVOA	450 JN
9. 112-80-1	Oleic_Acid_____	26.60	SVOA	690 JN
10. --	Unknown_Alkyl_PNA_+ C.E.	27.52	SVOA	310 J N
11. --	Unknown_____	29.53	SVOA	270 J N
12. --	Unknown_____	31.78	SVOA	330 J N
13. --	Unknown_____	31.98	SVOA	570 J N
14. --	Unknown_Aldehyde_____	33.65	SVOA	360 J N
15. --	Unknown_____	36.05	SVOA	400 J N
16. --	Unknown_____	36.47	SVOA	610 J N
17. --	Unknown_____	37.78	SVOA	340 J N
18. --	Unknown_____	37.92	SVOA	2,500 J N
19. --	Unknown_____	38.27	SVOA	2,600 J N
20. 1058-61-3	Stigmast-4-en-3-one_____	38.80	SVOA	540 JN



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BF

LIMS ID: 97-18081

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/24/97

Sample No: 9739 4764

WR-SD- SD135- 0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.9%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	340
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	100 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	100 U
88-06-2	2,4,6-Trichlorophenol	100 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	100 U

FORM-1

00605

4212  
JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BF

LIMS ID: 97-18081

Matrix: Sediment

Data Release Authorized: *ONR*

Reported: 11/24/97

Sample No: 9739 4764

WR-SD-SD135-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 40.9%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	100 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	71
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	98
129-00-0	Pyrene	79
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	100 U
56-55-3	Benzo(a)anthracene	34
117-81-7	bis(2-Ethylhexyl)phthalate	320
218-01-9	Chrysene	58
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	41
207-08-9	Benzo(k)fluoranthene	29
50-32-8	Benzo(a)pyrene	46
193-39-5	Indeno(1,2,3-cd)pyrene	24
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	29

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	64.3%	d5-Phenol	64.3%
2-Fluorobiphenyl	78.6%	2-Fluorophenol	45.3%
d14-p-Terphenyl	77.0%	2,4,6-Tribromophenol	99.1%
d4-1,2-Dichlorobenzene	50.4%	d4-2-Chlorophenol	59.6%

FORM-1

39506

4213

9MB  
12348



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4764

WR-SD-SD135-0000

Lab Sample ID: T971BF  
LIMS ID: 97-18081  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *omp*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	5.93	SVOA	650 JN
2. --	Unknown	8.53	SVOA	330 JN
3. 103-82-2	Benzeneacetic acid	13.93	SVOA	740 JN
4. 544-63-8	Tetradecanoic acid	21.80	SVOA	240 JN
5. 1002-84-2	Pentadecanoic acid	22.67	SVOA	340 JN
6. 5746-58-7	Tetradecanoic acid, 12-me	22.78	SVOA	310 JN
7. 87-51-4	Indoleacetic acid	23.55	SVOA	210 JN
8. --	Unknown	24.22	SVOA	740 JN
9. --	Unknown	24.32	SVOA	240 JN
10. 57-10-3	Hexadecanoic acid	24.48	SVOA	750 JN
11. 112-80-1	Oleic Acid	26.62	SVOA	1,000 JN
12. --	Unknown_Alkyl_PNA+_C.E._	27.52	SVOA	480 JN
13. --	Unknown	31.78	SVOA	340 JN
14. --	Unknown	32.00	SVOA	510 JN
15. --	Unknown	32.53	SVOA	400 JN
16. --	Unknown	36.07	SVOA	480 JN
17. --	Unknown	37.93	SVOA	3,000 JN
18. --	Unknown	38.28	SVOA	2,500 JN
19. --	Unknown	38.53	SVOA	350 JN
20. 1058-61-3	Stigmast-4-en-3-one	38.82	SVOA	500 JN

FORM-1-B

90307

4214

JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BG

LIMS ID: 97-18082

Matrix: Sediment

Data Release Authorized: *EMP*

Reported: 11/24/97

Sample No: 9739 4765

WR-SD- SD137-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.2%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	240
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

4263

FORM-1

00308

JMB  
173198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BG

LIMS ID: 97-18082

Matrix: Sediment

Data Release Authorized: *ONP*

Reported: 11/24/97

Sample No: 9739 4765

WR-SD-SD137-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/17/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 44.2%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	20 U
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	26
129-00-0	Pyrene	19 J
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	20 U
117-81-7	bis(2-Ethylhexyl)phthalate	56
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	20 U
207-08-9	Benzo(k)fluoranthene	20 U
50-32-8	Benzo(a)pyrene	20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20 U
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	20 U

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	60.5%	d5-Phenol	62.9%
2-Fluorobiphenyl	69.2%	2-Fluorophenol	52.9%
d14-p-Terphenyl	84.2%	2,4,6-Tribromophenol	73.8%
d4-1,2-Dichlorobenzene	55.3%	d4-2-Chlorophenol	56.5%

4264

FORM-1

99009

gMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4765

WR-SD - SD137-0000

Lab Sample ID: T971BG  
LIMS ID: 97-18082  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: 640  
Reported: 11/24/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 503-74-2	Butanoic_acid,_3-methyl_	5.52	SVOA	140 JN
2. 116-53-0	Butanoic_acid,_2-methyl_	5.92	SVOA	580 JN
3. 79-34-5	Ethane,_1,1,2,2-tetrachloro	6.10	SVOA	86 JN R
4. 109-52-4	Pentanoic_acid_____	6.37	SVOA	120 JN
5. 103-82-2	Benzeneacetic_acid_____	14.08	SVOA	540 JN
6. --	Unknown_____	20.93	SVOA	120 JN
7. 544-63-8	Tetradecanoic_acid_____	21.93	SVOA	53 JN
8. --	Unknown_____	24.07	SVOA	50 JN
9. --	Unknown_____	24.32	SVOA	55 JN
10. 57-10-3	Hexadecanoic_acid_____	24.57	SVOA	120 JN
11. --	Unknown_____	26.70	SVOA	87 JN
12. --	Unknown_Alkyl_PNA+_C.E._	27.72	SVOA	81 JN
13. --	Unknown_____	31.98	SVOA	94 JN
14. --	Unknown_____	33.77	SVOA	86 JN
15. --	Unknown_____	36.17	SVOA	120 JN
16. --	Unknown_____	36.68	SVOA	70 JN
17. --	Unknown_____	36.92	SVOA	92 JN
18. --	Unknown_____	38.10	SVOA	640 JN
19. --	Unknown_____	38.43	SVOA	330 J N
20. --	Unknown_____	38.65	SVOA	150 J N



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BH

LIMS ID: 97-18083

Matrix: Sediment

Data Release Authorized: *BRP*

Reported: 11/24/97

Sample No: 9739 4766

WR-SD- SD.37-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.3%

pH: 7.4

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	590
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

4305

00511

JMB  
12319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BH

LIMS ID: 97-18083

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/24/97

Sample No: 9739 4766

WR-SD-SD137-1000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.3%

pH: 7.4

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U
85-01-8	Phenanthrene	67
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	120
129-00-0	Pyrene	100
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	32
117-81-7	bis(2-Ethylhexyl)phthalate	250
218-01-9	Chrysene	61
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	40
207-08-9	Benzo(k)fluoranthene	30
50-32-8	Benzo(a)pyrene	36
193-39-5	Indeno(1,2,3-cd)pyrene	20
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	23

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	63.0%	d5-Phenol	58.9%
2-Fluorobiphenyl	74.7%	2-Fluorophenol	43.8%
d14-p-Terphenyl	81.4%	2,4,6-Tribromophenol	100%
d4-1,2-Dichlorobenzene	40.6%	d4-2-Chlorophenol	55.5%

FORM-1

00512

4306

JMB  
11/29/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4766

WR-SD-SD137-1000

Lab Sample ID: T971BH  
LIMS ID: 97-18083  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *CRB*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Organic_Acid_____	5.90	SVOA	840 J N
2. 116-53-0	Butanoic_acid,_2-methyl_-	6.30	SVOA	590 J N
3. 103-82-2	Benzeneacetic_acid_____	14.05	SVOA	1,200 J N
4. 544-63-8	Tetradecanoic_acid_____	21.85	SVOA	500 J N
5. 1002-84-2	Pentadecanoic_acid_____	22.73	SVOA	820 J N
6. 5746-58-7	Tetradecanoic_acid,_12-me	22.85	SVOA	670 J N
7. 87-51-4	Indoleacetic_acid_____	23.57	SVOA	350 J N
8. --	Unknown_____	24.28	SVOA	1,900 J N
9. --	Unknown_____	24.38	SVOA	750 J N
10. 57-10-3	Hexadecanoic_acid_____	24.57	SVOA	1,700 J N
11. 112-80-1	Oleic_Acid_____	26.68	SVOA	3,000 J N
12. --	Unknown_Alkyl_PNA_+ C.E._	27.55	SVOA	650 J N
13. --	Unknown_____	31.82	SVOA	660 J N
14. --	Unknown_Aldehyde_____	33.68	SVOA	720 J N
15. --	Unknown_____	36.08	SVOA	1,100 J N
16. 57-88-5	Cholesterol_____	36.37	SVOA	2,100 J N
17. --	Unknown_____	37.92	SVOA	4,500 J N
18. --	Unknown_____	38.32	SVOA	3,500 J N
19. --	Amyrin_Iso_____	38.53	SVOA	980 J N
20. 1058-61-3	Stigmast-4-en-3-one_____	38.85	SVOA	580 J N

FORM-1-B

99313

4307

JMB  
17319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BI

LIMS ID: 97-18084

Matrix: Sediment

Data Release Authorized: *BWB*

Reported: 11/24/97

Sample No: 9739 4767

WR-SD- SD140-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.8%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	40 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	730
621-64-7	N-Nitroso-Di-N-Propylamine	40 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	99 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	60 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	60 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	40 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	99 U
88-06-2	2,4,6-Trichlorophenol	99 U
95-95-4	2,4,5-Trichlorophenol	99 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	99 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	20 U
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	99 U
132-64-9	Dibenzofuran	20 U
606-20-2	2,6-Dinitrotoluene	99 U

4356

FORM-1

00614

JMB  
123199



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: T971BI

LIMS ID: 97-18084

Matrix: Sediment

Data Release Authorized: *AWP*

Reported: 11/24/97

Sample No: 9739 4767

WR-SD-SD140-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finnn8

GPC Cleanup: YES

Sample Amount: 50.4 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.8%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	99 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200 U
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	99 U
85-01-8	Phenanthrene	62
86-74-8	Carbazole	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	130
129-00-0	Pyrene	110
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	99 U
56-55-3	Benzo(a)anthracene	40
117-81-7	bis(2-Ethylhexyl)phthalate	190
218-01-9	Chrysene	91
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	40
207-08-9	Benzo(k)fluoranthene	32
50-32-8	Benzo(a)pyrene	36
193-39-5	Indeno(1,2,3-cd)pyrene	23
53-70-3	Dibenz(a,h)anthracene	20 U
191-24-2	Benzo(g,h,i)perylene	22

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	73.1%	d5-Phenol	64.1%
2-Fluorobiphenyl	67.8%	2-Fluorophenol	53.6%
d14-p-Terphenyl	80.9%	2,4,6-Tribromophenol	102%
d4-1,2-Dichlorobenzene	52.0%	d4-2-Chlorophenol	62.6%

FORM-1

00615

4357  
JMB  
11/23/97



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4767

WR-SD-SD140-0000

Lab Sample ID: T971BI  
LIMS ID: 97-18084  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Data Release Authorized: *bmf*  
Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 116-53-0	Butanoic_acid,_2-methyl_	6.52	SVOA	1,200 JN
2. 109-52-4	Pentanoic_acid_____	6.83	SVOA	320 JN
3. 103-82-2	Benzeneacetic_acid_____	14.12	SVOA	1,500 JN
4. 544-63-8	Tetradecanoic_acid_____	21.83	SVOA	290 JN
5. 1002-84-2	Pentadecanoic_acid_____	22.70	SVOA	400 JN
6. --	Unknown_____	22.83	SVOA	370 J N
7. --	Unknown_____	24.25	SVOA	760 J N
8. 57-10-3	Hexadecanoic_acid_____	24.50	SVOA	580 JN
9. 112-80-1	Oleic_Acid_____	26.63	SVOA	1,300 JN
10. --	Unknown_Alkyl_PNA+_C.E._	27.53	SVOA	450 J N
11. --	Unknown_____	31.82	SVOA	590 J N
12. --	Unknown_____	33.68	SVOA	580 J N
13. --	Unknown_PNA+_C.E._____	33.97	SVOA	480 J N
14. --	Unknown_____	36.08	SVOA	880 J N
15. 57-88-5	Cholesterol	36.37	SVOA	480 JN
16. 4651-51-8	Ergost-5-en-3-ol,_ (3.beta	37.28	SVOA	450 JN
17. --	Unknown_____	37.97	SVOA	5,200 J N
18. --	Unknown_____	38.32	SVOA	3,500 J N
19. --	Unknown_____	38.53	SVOA	990 J N
20. 1058-61-3	Stigmast-4-en-3-one_____	38.85	SVOA	520 JN

4358  
JMB  
12319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: T971BJ

LIMS ID: 97-18085

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/24/97

Sample No: 9739 4768

WR-SD- SD14Z-0000

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/24/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/13/97

Instrument: finn8

GPC Cleanup: YES

Sample Amount: 52.5 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 52.4%

pH: 7.3

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	950
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	95 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	57 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	57 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	95 U
88-06-2	2,4,6-Trichlorophenol	95 U
95-95-4	2,4,5-Trichlorophenol	95 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	95 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	110 U
83-32-9	Acenaphthene	35
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	95 U
132-64-9	Dibenzofuran	21
606-20-2	2,6-Dinitrotoluene	95 U

FORM-1

00517

4407  
JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS  
Page 2 of 2  
Lab Sample ID: T971BJ  
LIMS ID: 97-18085  
Matrix: Sediment  
Data Release Authorized: *EWB*  
Reported: 11/24/97

Sample No: 9739 4768  
*WR-SD-SD142-0000*  
QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/24/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/13/97  
Instrument: finn8  
GPC Cleanup: YES

Sample Amount: 52.5 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 52.4%  
pH: 7.3

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	95 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	33
100-01-6	4-Nitroaniline	95 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	95 U
85-01-8	Phenanthrene	140
86-74-8	Carbazole	19 U
120-12-7	Anthracene	20
84-74-2	Di-n-Butylphthalate	19 U
206-44-0	Fluoranthene	200
129-00-0	Pyrene	140
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	95 U
56-55-3	Benzo(a)anthracene	58
117-81-7	bis(2-Ethylhexyl)phthalate	300
218-01-9	Chrysene	86
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	55
207-08-9	Benzo(k)fluoranthene	56
50-32-8	Benzo(a)pyrene	48
193-39-5	Indeno(1,2,3-cd)pyrene	33
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	27

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	81.1%	d5-Phenol	77.2%
2-Fluorobiphenyl	82.9%	2-Fluorophenol	65.6%
d14-p-Terphenyl	82.0%	2,4,6-Tribromophenol	102%
d4-1,2-Dichlorobenzene	73.5%	d4-2-Chlorophenol	71.9%

FORM-1

00518

4408  
JMB  
11/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 9739 4768

WR-SD-SD142-0000

Lab Sample ID: T971BJ

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18085

Project: 1001-006

Matrix: Sediment

Date Sampled: 09/24/97

Date Received: 09/27/97

Data Release Authorized: *out*

Reported: 11/24/97

Date Analyzed: 11/13/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	5.95	SVOA	350 JNB
2. 503-74-2	Butanoic acid, 3-methyl-	6.33	SVOA	1,000 JN
3. 97-61-0	Pentanoic acid, 2-methyl-	6.73	SVOA	1,600 JN
4. --	Unknown _____	7.02	SVOA	410 JN
5. 103-82-2	Benzeneacetic acid _____	14.13	SVOA	1,700 JN
6. 544-63-8	Tetradecanoic acid _____	21.83	SVOA	260 JN
7. 1002-84-2	Pentadecanoic acid _____	22.70	SVOA	400 JN
8. --	Unknown _____	24.27	SVOA	760 JN
9. --	Unknown _____	24.37	SVOA	260 JN
10. 57-10-3	Hexadecanoic acid _____	24.52	SVOA	540 JN
11. 112-80-1	Oleic Acid _____	26.65	SVOA	500 JN
12. --	Unknown_Alkyl_PNA+_C.E._	27.55	SVOA	290 JN
13. --	Unknown _____	32.02	SVOA	430 JN
14. --	Unknown_PNA+_C.E._	34.00	SVOA	240 JN
15. 57-88-5	Cholesterol _____	36.38	SVOA	610 JN
16. --	Unknown _____	37.32	SVOA	400 JN
17. --	Unknown _____	37.65	SVOA	230 JN
18. --	Unknown _____	37.97	SVOA	2,500 JN
19. --	Unknown _____	38.32	SVOA	1,700 JN
20. --	Unknown _____	38.55	SVOA	370 JN

FORM-1-B

99619

4409

JMB  
12319



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4700  
DILUTION WR-SD- SD101-0000

Lab Sample ID: T971CDL  
LIMS ID: 97-18027

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Roger*  
Reported: 11/11/97

Date Sampled: 09/21/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 52.0 g-dry-wt

Date analyzed: 11/07/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:50

Florisil: YES

Percent Moisture: 48.0%

Sulfur Cleanup: YES

pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	48 U
319-85-7	beta-BHC	48 U
319-86-8	delta-BHC	48 U
58-89-9	gamma-BHC (Lindane)	48 U
76-44-8	Heptachlor	48 U
309-00-2	Aldrin	48 U
1024-57-3	Heptachlor Epoxide	48 U
959-98-8	Endosulfan I	48 U
60-57-1	Dieldrin	96 U
72-55-9	4,4'-DDE	96 U
72-20-8	Endrin	96 U
33213-65-9	Endosulfan II	96 U
72-54-8	4,4'-DDD	110
1031-07-8	Endosulfan Sulfate	96 U
50-29-3	4,4'-DDT	470
72-43-5	Methoxychlor	480 U
53494-70-5	Endrin Ketone	96 U
7421-93-4	Endrin Aldehyde	96 U
57-74-9	gamma Chlordane	48 U
5103-71-9	alpha Chlordane	48 U
8001-35-2	Toxaphene	4,800 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylenne D

FORM-1  
00620

5306

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4702

DILUTION

WR-SD- SD 081- 0000

Lab Sample ID: T971DDL

LIMS ID: 97-18028

Matrix: Sediment

Data Release Authorized: *Night*

Reported: 11/11/97

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/07/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 50.5 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:50

Percent Moisture: 33.3%

pH: 7.1

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	50 U
319-85-7	beta-BHC	50 U
319-86-8	delta-BHC	50 U
58-89-9	gamma-BHC (Lindane)	50 U
76-44-8	Heptachlor	50 U
309-00-2	Aldrin	50 U
1024-57-3	Heptachlor Epoxide	50 U
959-98-8	Endosulfan I	50 U
60-57-1	Dieldrin	99 U
72-55-9	4,4'-DDE	99 U
72-20-8	Endrin	99 U
33213-65-9	Endosulfan II	99 U
72-54-8	4,4'-DDD	76 J
1031-07-8	Endosulfan Sulfate	99 U
50-29-3	4,4'-DDT	490
72-43-5	Methoxychlor	500 U
53494-70-5	Endrin Ketone	99 U
7421-93-4	Endrin Aldehyde	99 U
57-74-9	gamma Chlordane	50 U
5103-71-9	alpha Chlordane	50 U
8001-35-2	Toxaphene	5,000 U
12674-11-2	Aroclor 1016	990 U
53469-21-9	Aroclor 1242	990 U
12672-29-6	Aroclor 1248	990 U
11097-69-1	Aroclor 1254	990 U
11096-82-5	Aroclor 1260	990 U
11104-28-2	Aroclor 1221	2,000 U
11141-16-5	Aroclor 1232	990 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaylene D

FORM-1  
99621

*JMB*  
1123198  
5312



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4704

WR-SD- SD083-0000

Lab Sample ID: T971E

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18029

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *R. Weston*

Date Sampled: 09/21/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 51.7 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:50

Florisil: YES

Percent Moisture: 53.1%

Sulfur Cleanup: YES

pH: 6.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	48 U
319-85-7	beta-BHC	48 U
319-86-8	delta-BHC	48 U
58-89-9	gamma-BHC (Lindane)	48 U
76-44-8	Heptachlor	48 U
309-00-2	Aldrin	48 U
1024-57-3	Heptachlor Epoxide	48 U
959-98-8	Endosulfan I	48 U
60-57-1	Dieldrin	97 U
72-55-9	4,4'-DDE	97 U
72-20-8	Endrin	97 U
33213-65-9	Endosulfan II	97 U
72-54-8	4,4'-DDD	120
1031-07-8	Endosulfan Sulfate	97 U
50-29-3	4,4'-DDT	620
72-43-5	Methoxychlor	480 U
53494-70-5	Endrin Ketone	97 U
7421-93-4	Endrin Aldehyde	97 U
57-74-9	gamma Chlordane	48 U
5103-71-9	alpha Chlordane	48 U
8001-35-2	Toxaphene	4,800 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

09322

JMB/123/98  
5317



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4705

WR-SD- SD 084- 000C

Lab Sample ID: T971F

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18030

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *R.F.W.*

Date Sampled: 09/21/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:50

Percent Moisture: 43.5%

pH: 7.1

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	49 U
319-85-7	beta-BHC	49 U
319-86-8	delta-BHC	49 U
58-89-9	gamma-BHC (Lindane)	49 U
76-44-8	Heptachlor	49 U
309-00-2	Aldrin	49 U
1024-57-3	Heptachlor Epoxide	49 U
959-98-8	Endosulfan I	49 U
60-57-1	Dieldrin	98 U
72-55-9	4,4'-DDE	98 U
72-20-8	Endrin	98 U
33213-65-9	Endosulfan II	98 U
72-54-8	4,4'-DDD	59 J
1031-07-8	Endosulfan Sulfate	98 U
50-29-3	4,4'-DDT	620
72-43-5	Methoxychlor	490 U
53494-70-5	Endrin Ketone	98 U
7421-93-4	Endrin Aldehyde	98 U
57-74-9	gamma Chlordane	49 U
5103-71-9	alpha Chlordane	49 U
8001-35-2	Toxaphene	4,900 U
12674-11-2	Aroclor 1016	980 U
53469-21-9	Aroclor 1242	980 U
12672-29-6	Aroclor 1248	980 U
11097-69-1	Aroclor 1254	980 U
11096-82-5	Aroclor 1260	980 U
11104-28-2	Aroclor 1221	2,000 U
11141-16-5	Aroclor 1232	980 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

00623

5322

JMB  
1123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4706

WR-SD- SD085- 0000

Lab Sample ID: T971G  
LIMS ID: 97-18031  
Matrix: Sediment  
Data Release Authorized: *Afghan*  
Reported: 11/11/97

QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/21/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 50.7 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:10  
Percent Moisture: 43.8%  
pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.9 U
319-85-7	beta-BHC	9.9 U
319-86-8	delta-BHC	9.9 U
58-89-9	gamma-BHC (Lindane)	9.9 U
76-44-8	Heptachlor	9.9 U
309-00-2	Aldrin	9.9 U
1024-57-3	Heptachlor Epoxide	15 <i>XII</i>
959-98-8	Endosulfan I	9.9 U
60-57-1	Dieldrin	20 U
72-55-9	4,4'-DDE	26
72-20-8	Endrin	20 U
33213-65-9	Endosulfan II	20 U
72-54-8	4,4'-DDD	110
1031-07-8	Endosulfan Sulfate	20 U
50-29-3	4,4'-DDT	370
72-43-5	Methoxychlor	99 U
53494-70-5	Endrin Ketone	20 U
7421-93-4	Endrin Aldehyde	20 U
57-74-9	gamma Chlordane	9.9 U
5103-71-9	alpha Chlordane	9.9 U
8001-35-2	Toxaphene	990 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 82.5%  
Tetrachlorometaxylene 102%

FORM-1

30324

JMB  
(123) 98 532



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4707

WR-SD- SD087-0000

Lab Sample ID: T971H

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18032

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Roy F. Weston*

Date Sampled: 09/21/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/28/97

Sample Amount: 50.1 g-dry-wt

Date analyzed: 11/07/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:50

Florisil: YES

Percent Moisture: 44.4%

Sulfur Cleanup: YES

pH: 6.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	50 U
319-85-7	beta-BHC	50 U
319-86-8	delta-BHC	50 U
58-89-9	gamma-BHC (Lindane)	50 U
76-44-8	Heptachlor	50 U
309-00-2	Aldrin	50 U
1024-57-3	Heptachlor Epoxide	50 U
959-98-8	Endosulfan I	50 U
60-57-1	Dieldrin	100 U
72-55-9	4,4'-DDE	100 U
72-20-8	Endrin	100 U
33213-65-9	Endosulfan II	100 U
72-54-8	4,4'-DDD	110
1031-07-8	Endosulfan Sulfate	100 U
50-29-3	4,4'-DDT	810
72-43-5	Methoxychlor	500 U
53494-70-5	Endrin Ketone	100 U
7421-93-4	Endrin Aldehyde	100 U
57-74-9	gamma Chlordane	50 U
5103-71-9	alpha Chlordane	50 U
8001-35-2	Toxaphene	5,000 U
12674-11-2	Aroclor 1016	1,000 U
53469-21-9	Aroclor 1242	1,000 U
12672-29-6	Aroclor 1248	1,000 U
11097-69-1	Aroclor 1254	1,000 U
11096-82-5	Aroclor 1260	1,000 U
11104-28-2	Aroclor 1221	2,000 U
11141-16-5	Aroclor 1232	1,000 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

30625

JMB 5335  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4708

WR-SD- SD088-0000

Lab Sample ID: T971I  
LIMS ID: 97-18033

Matrix: Sediment

Data Release Authorized: *Hegner*  
Reported: 11/11/97

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 51.6 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:100  
Percent Moisture: 46.0%  
pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	97 U
319-85-7	beta-BHC	97 U
319-86-8	delta-BHC	97 U
58-89-9	gamma-BHC (Lindane)	97 U
76-44-8	Heptachlor	97 U
309-00-2	Aldrin	97 U
1024-57-3	Heptachlor Epoxide	97 U
959-98-8	Endosulfan I	97 U
60-57-1	Dieldrin	190 U
72-55-9	4,4'-DDE	190 U
72-20-8	Endrin	190 U
33213-65-9	Endosulfan II	190 U
72-54-8	4,4'-DDD	100 J
1031-07-8	Endosulfan Sulfate	190 U
50-29-3	4,4'-DDT	930
72-43-5	Methoxychlor	970 U
53494-70-5	Endrin Ketone	190 U
7421-93-4	Endrin Aldehyde	190 U
57-74-9	gamma Chlordane	97 U
5103-71-9	alpha Chlordane	97 U
8001-35-2	Toxaphene	9,700 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

39326

-5341

JMB  
10.3.1998



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T971J  
LIMS ID: 97-18034  
Matrix: Sediment  
Data Release Authorized: *Alphie*  
Reported: 11/11/97

Sample No: 9739 4710

WR-SD- SD090- 0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/21/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 50.5 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:100  
Percent Moisture: 44.5%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	99 U
319-85-7	beta-BHC	99 U
319-86-8	delta-BHC	99 U
58-89-9	gamma-BHC (Lindane)	99 U
76-44-8	Heptachlor	99 U
309-00-2	Aldrin	99 U
1024-57-3	Heptachlor Epoxide	99 U
959-98-8	Endosulfan I	99 U
60-57-1	Dieldrin	200 U
72-55-9	4,4'-DDE	200 U
72-20-8	Endrin	200 U
33213-65-9	Endosulfan II	200 U
72-54-8	4,4'-DDD	160 J
1031-07-8	Endosulfan Sulfate	200 U
50-29-3	4,4'-DDT	2,100
72-43-5	Methoxychlor	990 U
53494-70-5	Endrin Ketone	200 U
7421-93-4	Endrin Aldehyde	200 U
57-74-9	gamma Chlordane	99 U
5103-71-9	alpha Chlordane	99 U
8001-35-2	Toxaphene	9,900 U
12674-11-2	Aroclor 1016	2,000 U
53469-21-9	Aroclor 1242	2,000 U
12672-29-6	Aroclor 1248	2,000 U
11097-69-1	Aroclor 1254	2,000 U
11096-82-5	Aroclor 1260	2,000 U
11104-28-2	Aroclor 1221	4,000 U
11141-16-5	Aroclor 1232	2,000 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

39527

*JMB*  
11/23/98 5346



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4711

WR-SD- SD093- 0000

Lab Sample ID: T971K

LIMS ID: 97-18035

Matrix: Sediment

Data Release Authorized: *Hughes*

Reported: 11/11/97

QC Report No: T971-Roy F. Weston

Project: 1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 51.9 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:10

Florisil: YES

Percent Moisture: 48.5%

Sulfur Cleanup: YES

pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.6 U
319-85-7	beta-BHC	9.6 U
319-86-8	delta-BHC	9.6 U
58-89-9	gamma-BHC (Lindane)	9.6 U
76-44-8	Heptachlor	9.6 U
309-00-2	Aldrin	9.6 U
1024-57-3	Heptachlor Epoxide	9.6 U
959-98-8	Endosulfan I	9.6 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	16 J
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	70
72-43-5	Methoxychlor	96 U
53494-70-5	Endrin Ketone	19 U
7421-93-4	Endrin Aldehyde	19 U
57-74-9	gamma Chlordane	9.6 U
5103-71-9	alpha Chlordane	9.6 U
8001-35-2	Toxaphene	960 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 72.5%

Tetrachlorometaxylene 65.0%

FORM-1

00628

5351

JMB 1123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4712

WR-SD- SD 092- 0000

Lab Sample ID: T971L

LIMS ID: 97-18036

Matrix: Sediment

Data Release Authorized: *Nyfha*

Reported: 11/11/97

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/22/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 53.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:20  
Percent Moisture: 24.2%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	19 U
319-85-7	beta-BHC	19 U
319-86-8	delta-BHC	19 U
58-89-9	gamma-BHC (Lindane)	19 U
76-44-8	Heptachlor	19 U
309-00-2	Aldrin	19 U
1024-57-3	Heptachlor Epoxide	19 U
959-98-8	Endosulfan I	19 U
60-57-1	Dieldrin	38 U
72-55-9	4,4'-DDE	20 J
72-20-8	Endrin	38 U
33213-65-9	Endosulfan II	38 U
72-54-8	4,4'-DDD	290
1031-07-8	Endosulfan Sulfate	240
50-29-3	4,4'-DDT	38 U
72-43-5	Methoxychlor	190 U
53494-70-5	Endrin Ketone	38 U
7421-93-4	Endrin Aldehyde	38 U
57-74-9	gamma Chlordane	19 U
5103-71-9	alpha Chlordane	19 U
8001-35-2	Toxaphene	1,900 U
12674-11-2	Aroclor 1016	380 U
53469-21-9	Aroclor 1242	380 U
12672-29-6	Aroclor 1248	380 U
11097-69-1	Aroclor 1254	380 U
11096-82-5	Aroclor 1260	380 U
11104-28-2	Aroclor 1221	750 U
11141-16-5	Aroclor 1232	380 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

00629

JMB  
1/23/98 5357



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4713

WR-SD- SD09Z-1000

Lab Sample ID: T971M  
LIMS ID: 97-18037  
Matrix: Sediment  
Data Release Authorized: *Roy F. Weston*  
Reported: 12/01/97

QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/22/97  
Date Received: 09/27/97

Date extracted: 10/28/97  
Date analyzed: 11/07/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 50.5 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:50  
Percent Moisture: 22.3%  
pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	49 U
319-85-7	beta-BHC	49 U
319-86-8	delta-BHC	49 U
58-89-9	gamma-BHC (Lindane)	49 U
76-44-8	Heptachlor	49 U
309-00-2	Aldrin	49 U
1024-57-3	Heptachlor Epoxide	49 U
959-98-8	Endosulfan I	49 U
60-57-1	Dieldrin	99 U
72-55-9	4,4'-DDE	99 U
72-20-8	Endrin	99 U
33213-65-9	Endosulfan II	99 U
72-54-8	4,4'-DDD	460
1031-07-8	Endosulfan Sulfate	99 U
50-29-3	4,4'-DDT	280
72-43-5	Methoxychlor	490 U
53494-70-5	Endrin Ketone	99 U
7421-93-4	Endrin Aldehyde	99 U
57-74-9	gamma Chlordane	49 U
5103-71-9	alpha Chlordane	49 U
8001-35-2	Toxaphene	4,900 U
12674-11-2	Aroclor 1016	990 U
53469-21-9	Aroclor 1242	990 U
12672-29-6	Aroclor 1248	990 U
11097-69-1	Aroclor 1254	990 U
11096-82-5	Aroclor 1260	990 U
11104-28-2	Aroclor 1221	2,000 U
11141-16-5	Aroclor 1232	990 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1  
39330

5363

JMB 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4714

WR-SD- SD097- 0000

Lab Sample ID: T971N  
LIMS ID: 97-18038

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Roy F. Weston*

Reported: 11/11/97

Date Sampled: 09/22/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 50.7 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:100

Percent Moisture: 43.8%

pH: 7.0

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	99 U
319-85-7	beta-BHC	99 U
319-86-8	delta-BHC	99 U
58-89-9	gamma-BHC (Lindane)	99 U
76-44-8	Heptachlor	99 U
309-00-2	Aldrin	99 U
1024-57-3	Heptachlor Epoxide	99 U
959-98-8	Endosulfan I	99 U
60-57-1	Dieldrin	200 U
72-55-9	4,4'-DDE	220
72-20-8	Endrin	200 U
33213-65-9	Endosulfan II	200 U
72-54-8	4,4'-DDD	420
1031-07-8	Endosulfan Sulfate	200 U
50-29-3	4,4'-DDT	3,100
72-43-5	Methoxychlor	990 U
53494-70-5	Endrin Ketone	200 U
7421-93-4	Endrin Aldehyde	200 U
57-74-9	gamma Chlordane	99 U
5103-71-9	alpha Chlordane	99 U
8001-35-2	Toxaphene	9,900 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachloromethylene D

FORM-1

00631

JMB:123/98  
5369



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4716

WR-SD- SD i06- 0000

Lab Sample ID: T971P

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18040

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/22/97

Date Received: 09/27/97

Data Release Authorized: *Roger*

Reported: 11/11/97

Date extracted: 10/15/97

GPC Cleanup: Yes

Date analyzed: 11/06/97

Florisil Cleanup: Yes

Sample Amount: 50.7 g-dry-wt

Acid Cleanup: Yes

Final Ext Vol: 10 mL

Sulfur Cleanup: Yes

pH: 6.9

Conc/Dilution Factor: 1:1

Percent Moisture: 43.8%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 59.8%  
Tetrachlorometaxylene 42.2%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

39532

5374

*MB*  
*103198*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4719

WR-SD- SD111-0000

Lab Sample ID: T971R  
LIMS ID: 97-18042  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project:  
1001-006  
Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *Roger*  
Reported: 11/11/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97

Sample Amount: 50.3 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.3

GPC Cleanup: Yes  
Florisil Cleanup: Yes  
Acid Cleanup: Yes  
Sulfur Cleanup: Yes  
Conc/Dilution Factor: 1:1  
Percent Moisture: 49.7%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 49.2%  
Tetrachlorometaxylene 35.2%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

00333

JMB 1/23/98  
5381



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4720

WR-SD- SD 116- 0000

Lab Sample ID: T971S

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18043

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Angela*

Date Sampled: 09/22/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 46.7%

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	0.98 U
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.3
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	1.6 J
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	1.6 J
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 56.8%  
Tetrachlorometaxylene 39.2%

FORM-1

30534

5388

JMB 1123/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4722

WR-SD- SD119-0000

Lab Sample ID: T971T  
LIMS ID: 97-18044  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project:  
1001-006  
Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *Roger*  
Reported: 11/11/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

Sample Amount: 51.7 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.1

GPC Cleanup: Yes  
Florisil Cleanup: Yes  
Acid Cleanup: Yes  
Sulfur Cleanup: Yes  
Conc/Dilution Factor: 1:1  
Percent Moisture: 48.6%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	51.0%
Tetrachlorometaxylene	38.8%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

00535

5395  
JMB 1/23/98

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9739 4723

WR-SD- SD122-0000

Lab Sample ID: T971U

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18045

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/22/97

Data Release Authorized: *August*  
Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97

GPC Cleanup: Yes

Sample Amount: 52.5 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.2

Florisil Cleanup: Yes

Acid Cleanup: Yes

Sulfur Cleanup: Yes

Conc/Dilution Factor: 1:1

Percent Moisture: 52.5%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 48.2%  
Tetrachlorometaxylene 36.0%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB  
00536

JMB : 123/4  
5402



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4724

WR-SD- SD121- 0000

Lab Sample ID: T971V  
LIMS ID: 97-18046  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/22/97  
Date Received: 09/27/97

Data Release Authorized: *Phyllis*  
Reported: 11/11/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97

Sample Amount: 50.7 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.2

GPC Cleanup: Yes  
Florisil Cleanup: Yes  
Acid Cleanup: Yes  
Sulfur Cleanup: Yes  
Conc/Dilution Factor: 1:1  
Percent Moisture: 43.9%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	56.5%
Tetrachlorometaxylene	42.2%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB  
90837

5409

JMB 1/23/



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4729

WR-SD-SDI41-0000

Lab Sample ID: T971AA

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18051

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Pugh*

Date Sampled: 09/22/97

Reported: 11/21/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 51.1 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 60.8%

Sulfur Cleanup: YES

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	0.98 U
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	1.7 J
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	1.7 J
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	2.0 U
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	31
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 34.5%  
Tetrachlorometaxylene 22.8%

FORM-1  
09658

5416

JMB 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4730

WR-SD- SD141-1000

Lab Sample ID: T971AB

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18052

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Neph*

Date Sampled: 09/22/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 51.5 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:10

Florisil: YES

Percent Moisture: 60.6%

Sulfur Cleanup: YES

pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.7 U
319-85-7	beta-BHC	9.7 U
319-86-8	delta-BHC	9.7 U
58-89-9	gamma-BHC (Lindane)	9.7 U
76-44-8	Heptachlor	9.7 U
309-00-2	Aldrin	9.7 U
1024-57-3	Heptachlor Epoxide	9.7 U
959-98-8	Endosulfan I	9.7 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	98
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	54
72-43-5	Methoxychlor	97 U
53494-70-5	Endrin Ketone	19 U
7421-93-4	Endrin Aldehyde	19 U
57-74-9	gamma Chlordane	9.7 U
5103-71-9	alpha Chlordane	9.7 U
8001-35-2	Toxaphene	970 U
12674-11-2	Aroclor 1016	190 U
53469-21-9	Aroclor 1242	190 U
12672-29-6	Aroclor 1248	190 U
11097-69-1	Aroclor 1254	190 U
11096-82-5	Aroclor 1260	190 U
11104-28-2	Aroclor 1221	390 U
11141-16-5	Aroclor 1232	190 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 60.0%  
Tetrachlorometaxylene 87.5%

FORM-1

00639

547

JMB  
7/21/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4732

WR-SD- SD124-0000

Lab Sample ID: T971AD  
LIMS ID: 97-18054  
Matrix: Sediment

QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/23/97  
Date Received: 09/27/97

Data Release Authorized: *Roger*  
Reported: 12/01/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97

Sample Amount: 50.6 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.1

GPC Cleanup: Yes  
Florisil Cleanup: Yes  
Acid Cleanup: Yes  
Sulfur Cleanup: Yes  
Conc/Dilution Factor: 1:1  
Percent Moisture: 46.7%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	38.2%
Tetrachlorometaxylen	30.8%

**Data Qualifiers**

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB  
39540

*JMB 1/23/98*  
5431



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4734

WR-SD- SD128-0000

Lab Sample ID: T971AF

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18056

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Data Release Authorized: *Hughes*

Reported: 11/11/97

Date extracted: 10/15/97

GPC Cleanup: Yes

Date analyzed: 11/06/97

Florisil Cleanup: Yes

Sample Amount: 50.1 g-dry-wt

Acid Cleanup: Yes

Final Ext Vol: 10 mL

Sulfur Cleanup: Yes

pH: 7.4

Conc/Dilution Factor: 1:10

Percent Moisture: 52.4%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	200 U
53469-21-9	Aroclor 1242	200 U
12672-29-6	Aroclor 1248	200 U
11097-69-1	Aroclor 1254	380
11096-82-5	Aroclor 1260	200 U
11104-28-2	Aroclor 1221	400 U
11141-16-5	Aroclor 1232	200 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	57.5%
Tetrachloromethylene	42.5%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

33541

*JMB*, 1/23/98  
5438



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4736

WR-SD- SD12S-0000

Lab Sample ID: T971AG

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18057

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/23/97

Data Release Authorized: *Roger*  
Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97

GPC Cleanup: Yes

Sample Amount: 52.2 g-dry-wt  
Final Ext Vol: 10 mL  
pH: 7.2

Florisil Cleanup: Yes

Acid Cleanup: Yes

Sulfur Cleanup: Yes

Conc/Dilution Factor: 1:1

Percent Moisture: 50.3%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 34.5%  
Tetrachlorometaxylene 28.5%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

39842

*JMB 1/23/98*  
5445



ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 9739 4738

WR-SD- SD127- 0000

Lab Sample ID: T971AH

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18058

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Data Release Authorized: *R. Weston*

Reported: 11/11/97

Date extracted: 10/15/97

GPC Cleanup: Yes

Date analyzed: 11/06/97

Florisil Cleanup: Yes

Sample Amount: 52.0 g-dry-wt

Acid Cleanup: Yes

Final Ext Vol: 10 mL

Sulfur Cleanup: Yes

pH: 7.2

Conc/Dilution Factor: 1:1

Percent Moisture: 48.2%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl 39.8%  
Tetrachlorometaxylen 31.5%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

00643

5452

JMB  
123198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4739

WR-SD- SD130-0000

Lab Sample ID: T971AI

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18059

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Data Release Authorized: *Roger*

Reported: 11/11/97

Date extracted: 10/15/97

GPC Cleanup: Yes

Date analyzed: 11/06/97

Florisil Cleanup: Yes

Acid Cleanup: Yes

Sample Amount: 51.3 g-dry-wt

Sulfur Cleanup: Yes

Final Ext Vol: 10 mL

Conc/Dilution Factor: 1:1

pH: 7.1

Percent Moisture: 48.7%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	19 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	41.0%
Tetrachlorometaxylene	33.0%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

00644

*JMB 11/23/98*  
*5459*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4750

WR-SD- SD117-0000

Lab Sample ID: T971AS

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18069

Project: 1001-006

Matrix: Sediment

Data Release Authorized:

Date Sampled: 09/23/97

Reported: 11/17/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 50.8 g-dry-wt

Date analyzed: 11/13/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 33.1%

Sulfur Cleanup: YES

pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	0.98 U
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	2.6
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	4.7
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	4.7
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.1 X UI
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	26
11096-82-5	Aroclor 1260	39 X UI
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 80.2%

Tetrachlorometaxylene 44.5%

FORM-1

00645

5466

JMB 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4751

WR-SD- SD117-1000

Lab Sample ID: T971AT

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18070

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Roger*

Date Sampled: 09/23/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Sample Amount: 50.9 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 32.9%

pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 U
319-85-7	beta-BHC	0.98 U
319-86-8	delta-BHC	0.98 U
58-89-9	gamma-BHC (Lindane)	0.98 U
76-44-8	Heptachlor	0.98 U
309-00-2	Aldrin	0.98 U
1024-57-3	Heptachlor Epoxide	0.98 U
959-98-8	Endosulfan I	0.98 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	1.4 J
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	1.9 J
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	1.8 J
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.98 U
5103-71-9	alpha Chlordane	0.98 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	39 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 42.8%  
Tetrachlorometaxylene 31.2%

5474

FORM-1

00546

JMB 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD

Sample No: 9739 4753

WR-SD- SD133- 0000

Lab Sample ID: T971AV

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18072

Project:

Matrix: Sediment

1001-006

Date Sampled: 09/23/97

Date Received: 09/27/97

Data Release Authorized: *Angela*

Reported: 11/11/97

Date extracted: 10/15/97

GPC Cleanup: Yes

Date analyzed: 11/06/97

Florisil Cleanup: Yes

Sample Amount: 52.1 g-dry-wt

Acid Cleanup: Yes

Final Ext Vol: 10 mL

Sulfur Cleanup: Yes

pH: 7.5

Conc/Dilution Factor: 1:10

Percent Moisture: 47.9%

Reported in Total ug/kg Dry Weight

CAS Number	Analyte	Value
12674-11-2	Aroclor 1016	190 U
53469-21-9	Aroclor 1242	190 U
12672-29-6	Aroclor 1248	190 U
11097-69-1	Aroclor 1254	580
11096-82-5	Aroclor 1260	190 U
11104-28-2	Aroclor 1221	380 U
11141-16-5	Aroclor 1232	190 U

PCB-Aroclor Surrogate Recovery

Decachlorobiphenyl	62.5%
Tetrachlorometaxylene	65.0%

Data Qualifiers

- J Indicates an estimated value when that result is less than the calculated detection limit.
- E Indicates a value above the linear range of the detector.
- Dilution Required
- S Indicates no value reported due to saturation of the detector.
- D Indicates the surrogate was diluted out.
- U Indicates compound was analyzed for, but not detected at the given detection limit.
- B Found in associated method blank
- NA Indicates compound was not analyzed.
- NR Indicates no recovery due to interferences.
- NV Indicates no value reportable - see additional analyses.
- Y Indicates a raised reporting limit due to matrix interferences. The analyte may be present at or below the listed concentration, but in the opinion of the analyst, confirmation was inadequate.

FORM-1 PCB

36347

5481

JMB 1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T971AY  
LIMS ID: 97-18074  
Matrix: Sediment  
Data Release Authorized: *[Signature]*  
Reported: 11/11/97

Sample No: 9739 4756

WR-SD- SD020-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/23/97  
Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 52.2 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:1  
Percent Moisture: 45.3%  
pH: 7.3

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 U
319-85-7	beta-BHC	0.96 U
319-86-8	delta-BHC	0.96 U
58-89-9	gamma-BHC (Lindane)	0.96 U
76-44-8	Heptachlor	0.96 U
309-00-2	Aldrin	0.96 U
1024-57-3	Heptachlor Epoxide	0.96 U
959-98-8	Endosulfan I	0.96 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.2 J
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.4 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.9 J
72-43-5	Methoxychlor	9.6 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.96 U
5103-71-9	alpha Chlordane	0.96 U
8001-35-2	Toxaphene	96 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 35.5%  
Tetrachlorometaxylene 29.5%

FORM-1

00648

5488

JMB  
1/23/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4758

WR-SD- SD138- 0000

Lab Sample ID: T971AZ

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18075

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Nahla*

Date Sampled: 09/24/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 52.5 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 47.7%

Sulfur Cleanup: YES

pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.95 U
319-85-7	beta-BHC	0.95 U
319-86-8	delta-BHC	0.95 U
58-89-9	gamma-BHC (Lindane)	0.95 U
76-44-8	Heptachlor	0.95 U
309-00-2	Aldrin	0.95 U
1024-57-3	Heptachlor Epoxide	0.95 U
959-98-8	Endosulfan I	0.95 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.4 J
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.1 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.4 J
72-43-5	Methoxychlor	9.5 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.95 U
5103-71-9	alpha Chlordane	0.95 U
8001-35-2	Toxaphene	95 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 40.8%  
Tetrachlorometaxylene 32.2%

FORM-1

00549

*JMB*  
*1123/98*  
*5495*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T971BB-RE  
LIMS ID: 97-18077  
Matrix: Sediment  
Data Release Authorized: *Neh*  
Reported: 11/17/97

Sample No: 9739 4760  
REANALYSIS

WR-SD-SD1SD-0000

QC Report No: T971-Roy F. Weston  
Project: 1001-006  
Date Sampled: 09/24/97  
Date Received: 09/27/97

Date extracted: 11/11/97  
Date analyzed: 11/13/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 29.7 g-dry-wt  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1:1  
Percent Moisture: 34.3%  
pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.84 U
319-85-7	beta-BHC	0.84 U
319-86-8	delta-BHC	0.84 U
58-89-9	gamma-BHC (Lindane)	0.84 U
76-44-8	Heptachlor	0.84 U
309-00-2	Aldrin	0.84 U
1024-57-3	Heptachlor Epoxide	0.84 U
959-98-8	Endosulfan I	0.94 YUI
60-57-1	Dieldrin	1.7 U
72-55-9	4,4'-DDE	1.7 U
72-20-8	Endrin	2.2 YUT
33213-65-9	Endosulfan II	1.7 U
72-54-8	4,4'-DDD	1.7 U
1031-07-8	Endosulfan Sulfate	1.7 U
50-29-3	4,4'-DDT	2.6 YUI
72-43-5	Methoxychlor	8.4 U
53494-70-5	Endrin Ketone	6.4 Y UI
7421-93-4	Endrin Aldehyde	3.3 Y UI
57-74-9	gamma Chlordane	1.4 Y UI
5103-71-9	alpha Chlordane	0.84 U
8001-35-2	Toxaphene	84 U
12674-11-2	Aroclor 1016	17 U
53469-21-9	Aroclor 1242	17 U
12672-29-6	Aroclor 1248	17 U
11097-69-1	Aroclor 1254	46
11096-82-5	Aroclor 1260	110
11104-28-2	Aroclor 1221	34 U
11141-16-5	Aroclor 1232	17 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 46.8%  
Tetrachlorometaxylene 34.5%

FORM-1

00550

JMB/1231  
5502



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4765

WR-SD- SD137-0000

Lab Sample ID: T971BG

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18082

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *R. F. Weston*

Date Sampled: 09/24/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Sample Amount: 50.6 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 44.2%

pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.99 U
319-85-7	beta-BHC	0.99 U
319-86-8	delta-BHC	0.99 U
58-89-9	gamma-BHC (Lindane)	0.99 U
76-44-8	Heptachlor	0.99 U
309-00-2	Aldrin	0.99 U
1024-57-3	Heptachlor Epoxide	0.99 U
959-98-8	Endosulfan I	0.99 U
60-57-1	Dieldrin	2.0 U
72-55-9	4,4'-DDE	1.7 J
72-20-8	Endrin	2.0 U
33213-65-9	Endosulfan II	2.0 U
72-54-8	4,4'-DDD	2.0 U
1031-07-8	Endosulfan Sulfate	2.0 U
50-29-3	4,4'-DDT	2.0 U
72-43-5	Methoxychlor	9.9 U
53494-70-5	Endrin Ketone	2.0 U
7421-93-4	Endrin Aldehyde	2.0 U
57-74-9	gamma Chlordane	0.99 U
5103-71-9	alpha Chlordane	0.99 U
8001-35-2	Toxaphene	99 U
12674-11-2	Aroclor 1016	20 U
53469-21-9	Aroclor 1242	20 U
12672-29-6	Aroclor 1248	20 U
11097-69-1	Aroclor 1254	20 U
11096-82-5	Aroclor 1260	20 U
11104-28-2	Aroclor 1221	40 U
11141-16-5	Aroclor 1232	20 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 41.5%  
Tetrachlorometaxylene 33.8%

FORM-1

0065:

*JMB 1/23/99*  
5510



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4766

WR-SD- SD137-1000

Lab Sample ID: T971BH

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18083

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Roger*

Date Sampled: 09/24/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Date analyzed: 11/06/97

GPC Cleanup: YES

Sample Amount: 52.4 g-dry-wt

Florisil: YES

Final Extract Volume: 10 mL

Sulfur Cleanup: YES

Dilution Factor: 1:1

Percent Moisture: 45.3%

pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.95 U
319-85-7	beta-BHC	0.95 U
319-86-8	delta-BHC	0.95 U
58-89-9	gamma-BHC (Lindane)	0.95 U
76-44-8	Heptachlor	0.95 U
309-00-2	Aldrin	0.95 U
1024-57-3	Heptachlor Epoxide	0.95 U
959-98-8	Endosulfan I	0.95 U
60-57-1	Dieldrin	1.9 U
72-55-9	4,4'-DDE	1.6 J
72-20-8	Endrin	1.9 U
33213-65-9	Endosulfan II	1.9 U
72-54-8	4,4'-DDD	1.3 J
1031-07-8	Endosulfan Sulfate	1.9 U
50-29-3	4,4'-DDT	1.5 J
72-43-5	Methoxychlor	9.5 U
53494-70-5	Endrin Ketone	1.9 U
7421-93-4	Endrin Aldehyde	1.9 U
57-74-9	gamma Chlordane	0.95 U
5103-71-9	alpha Chlordane	0.95 U
8001-35-2	Toxaphene	95 U
12674-11-2	Aroclor 1016	19 U
53469-21-9	Aroclor 1242	19 U
12672-29-6	Aroclor 1248	19 U
11097-69-1	Aroclor 1254	19 U
11096-82-5	Aroclor 1260	19 U
11104-28-2	Aroclor 1221	38 U
11141-16-5	Aroclor 1232	19 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 40.0%  
Tetrachlorometaxylen 32.8%

FORM-1

00352

JMB/123/k  
5517



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 9739 4777

WR-SD- SD151-0000

Lab Sample ID: T971BP

QC Report No: T971-Roy F. Weston

LIMS ID: 97-18091

Project: 1001-006

Matrix: Sediment

Data Release Authorized: *Nayak*

Date Sampled: 09/24/97

Reported: 11/11/97

Date Received: 09/27/97

Date extracted: 10/15/97

Sample Amount: 52.6 g-dry-wt

Date analyzed: 11/06/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:50

Florisil: YES

Percent Moisture: 47.5%

Sulfur Cleanup: YES

pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	48 U
319-85-7	beta-BHC	48 U
319-86-8	delta-BHC	48 U
58-89-9	gamma-BHC (Lindane)	48 U
76-44-8	Heptachlor	48 U
309-00-2	Aldrin	48 U
1024-57-3	Heptachlor Epoxide	48 U
959-98-8	Endosulfan I	48 U
60-57-1	Dieldrin	95 U
72-55-9	4,4'-DDE	95 U
72-20-8	Endrin	95 U
33213-65-9	Endosulfan II	95 U
72-54-8	4,4'-DDD	95 U
1031-07-8	Endosulfan Sulfate	95 U
50-29-3	4,4'-DDT	95 U
72-43-5	Methoxychlor	480 U
53494-70-5	Endrin Ketone	95 U
7421-93-4	Endrin Aldehyde	95 U
57-74-9	gamma Chlordane	48 U
5103-71-9	alpha Chlordane	48 U
8001-35-2	Toxaphene	4,800 U
12674-11-2	Aroclor 1016	950 U
53469-21-9	Aroclor 1242	950 U
12672-29-6	Aroclor 1248	950 U
11097-69-1	Aroclor 1254	950 U
11096-82-5	Aroclor 1260	950 U
11104-28-2	Aroclor 1221	1,900 U
11141-16-5	Aroclor 1232	950 U

Pesticide Surrogate Recovery

Decachlorobiphenyl D  
Tetrachlorometaxylene D

FORM-1

00353

JMB 1/23/98  
5524



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Lab Sample ID: T971BQ  
LIMS ID: 97-18092  
Matrix: Sediment  
Data Release Authorized: *R. Weston*  
Reported: 11/11/97

Sample No: 9739 4778

WR-SD- SD151-1000

QC Report No: T971-Roy F. Weston  
Project: 1001-006

Date Sampled: 09/24/97  
Date Received: 09/27/97

Date extracted: 10/15/97  
Date analyzed: 11/06/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 51.7 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:10  
Percent Moisture: 46.0%  
pH: 7.4

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.7 U
319-85-7	beta-BHC	9.7 U
319-86-8	delta-BHC	9.7 U
58-89-9	gamma-BHC (Lindane)	9.7 U
76-44-8	Heptachlor	9.7 U
309-00-2	Aldrin	9.7 U
1024-57-3	Heptachlor Epoxide	9.7 U
959-98-8	Endosulfan I	9.7 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	19 U
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	19 U
72-43-5	Methoxychlor	97 U
53494-70-5	Endrin Ketone	19 U
7421-93-4	Endrin Aldehyde	19 U
57-74-9	gamma Chlordane	9.7 U
5103-71-9	alpha Chlordane	9.7 U
8001-35-2	Toxaphene	970 U
12674-11-2	Aroclor 1016	190 U
53469-21-9	Aroclor 1242	190 U
12672-29-6	Aroclor 1248	190 U
11097-69-1	Aroclor 1254	500
11096-82-5	Aroclor 1260	190 U
11104-28-2	Aroclor 1221	390 U
11141-16-5	Aroclor 1232	190 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 102%  
Tetrachlorometaxylene 70.0%

FORM-1

09551

JMB 1/23/14  
5530



Roy F. Weston, Inc.  
Suite 5700  
700 5th Avenue  
Seattle, Washington 98104-5057  
206-521-7600 • Fax 206-521-7601

## MEMORANDUM

DATE: 4 February 1998

TO: John Meyer, WAM, U.S. EPA, Region X

FROM: Jennifer M. Baier, Environmental Chemist, WESTON, Seattle  
*JMB*  
 Roger McGinnis, Senior Environmental Chemist, WESTON, Seattle  
*RJM*

SUBJECT: Validation of Organics (Semivolatiles, Pesticides, and PCBs)  
 SDG No: U175  
 Site: Willamette River

WORK ASSIGNMENT NO: 46-23-0JZZ

DOC. CONTROL NO.: 4000-019-036-AABP

WORK ORDER NO.: 4000-019-036-5200-00

cc: Bruce Woods, RAP-WAM, U.S. EPA, Region X  
 Karen Stash, Project Manager, WESTON, Seattle (memo only)

The quality assurance review of 10 samples, SDG U175, collected from the Willamette River has been completed. The sediment samples were analyzed at low level for semivolatiles, pesticides and PCBs by Analytical Resources, Inc. The samples were numbered:

97424900	97424902	97424903	97424904	97424906
97424907	97424908	97424909	97424910	97424912

### Data Qualifications

The following comments refer to the laboratory performance in meeting the quality control criteria described in the technical specifications of the laboratory subcontract. The review follows the format described in the *National Functional Guidelines for Organic Data Review* (EPA OSWER Directive 9240.1-05, February 1994).

#### 1. Timeliness

All samples met holding time criteria.

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98-0075a.dvm  
 DCN 4000-019-036-AABP

00639  
 00639

USEPA SF



1079374



QA Case U175 (Organics)

Site: Willamette River

Page 2

2. GC/MS Instrument Performance Check

All tuning check compound mass abundances and ratios were within required limits.

3. Initial Calibration

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with average relative response factors  $\overline{RRF}$  greater than or equal to 0.05.

All target compound list (TCL) analytes and system monitoring compounds were within required limits for the initial calibration with  $\overline{RRF}$  percent relative standard deviations (percent RSD) less than 30 percent except:

Date	Compound	Percent RSD	Associated Samples
11/13/97	Benzyl Alcohol	34.2	97424900, 97424902,
	Hexachlorocyclopentadiene	39.8	97424903, 97424904,
	2,4-Dinitrophenol	58.3	97424906, 97424907,
	4,6-Dinitro-2-methylphenol	32.8	97424909, 97424910,
	Pentachlorophenol	35.2	97424912
11/21/97	2,4-Dinitrophenol	31.8	97424900DL, 97424907DL, 97424909DL, 97424910DL, 97424912DL

Results and quantitation limits for compounds associated with the above calibrations and samples have been qualified as estimated (J) as a high RSD is indicative of calibration nonlinearity.

4. Continuing Calibrations

All target compound list (TCL) analytes were within required limits for the continuing calibrations with average relative response factors  $\overline{RRF}$  greater than or equal to 0.05.

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QA Case U175 (Organics)

Site: Willamette River

Page 3

All target compound list (TCL) analytes were within required limits for the continuing calibration with RRF percent differences less than 25 percent except:

Date	Time	Compound	% Diff	Associated Samples
11/17/97	15:57	Benzyl Alcohol	-58.4	97424900, 97424902,
		Hexachlorocyclopentadiene	43.4	97424903, 97424904,
		3-Nitroaniline	53.1	97424906, 97424907,
		4-Nitroaniline	36.8	97424909, 97424910,
		N-Nitrosodiphenylamine	36.1	97424912
		Carbazole	62.2	

Positive results for compounds associated with the above calibrations and samples have been qualified as estimated (J).

5. Detection Limits—Acceptable

Laboratory reporting limits are less than or equal to project required quantitation limits.

6. Blanks

a. Laboratory Method Blanks

Laboratory method blank frequency criteria were met.

The following compounds were detected in laboratory method blanks.

Blank ID	Fraction	Compound (RT)	Concentration ( $\mu$ g/kg)
Method Blank	BNA	1,1,2,2-Tetrachloroethane (6.62)	31
		Unknown Alcohol (13.67)	25
		Unknown Alcohol (18.97)	57

Reported levels of the above compounds were qualified as undetected with an adjusted quantitation limit (UJ) in samples if concentrations were less than five times concentrations present in the blank (ten times for common laboratory contaminants [e.g., phthalates]).

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QA Case U175 (Organics)

Site: Willamette River

Page 4

b. Field Blanks

No field blanks were associated with this SDG.

7. System Monitoring Compounds (Surrogates)

Surrogate compound percent recovery met quality control criteria for all samples except:

Sample	Fraction	Compound	Percent Recovery	QC Limits
97424900	Pest/PCB	TCMX	20.5	30-150
97424902	Pest/PCB	TCMX	19	30-150
97424904	Pest/PCB	TCMX	21.5	30-150
97424906	Pest/PCB	TCMX	28	30-150
	Pest/PCB	DCB	18.5	30-150
97424912	Pest/PCB	TCMX	18.5	30-150

Results and quantitation limits for samples listed above were qualified as estimated (J/UJ). For samples with any surrogate recovery less than 10 percent, positive results were qualified as estimated (J) and quantitation limits for undetected compounds were rejected (R).

8. Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) or matrix spike duplicate (MSD) percent recovery for the following compounds were outside QC guidelines.

Sample	Fraction	Compound	Percent Recovery	QC Limits
97424912	BNA	Acenaphthene Pentachlorophenol	23.6 0	31-137 17-109

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QA Case U175 (Organics)

Site: Willamette River

Page 5

Sample	Fraction	Compound	Percent Recovery	QC Limits
97424900	Pest/PCB-MS	gamma-BHC	19.4	46-127
		Heptachlor	18.8	35-130
		Aldrin	14.2	34-132
		Endrin	38.9	42-139
	Pest/PCB-MSD	gamma-BHC	15.4	46-127
		Heptachlor	15.9	35-130
		Aldrin	11.4	34-132
		Endrin	30.7	42-139

Relative percent differences (RPD) between the MS and MSD percent recoveries exceeded QC guidelines for the following compounds:

Sample	Fraction	Compound	RPD	QC Limits
97424912	BNA	Acenaphthene	98	19

No action was taken based solely on MS/MSD data, with the exception of pentachlorophenol in sample 97424912. The result was rejected (R) due to poor spike recovery.

9. Field Duplicate Analysis

No field duplicate samples were associated with this sample delivery group.

10. Internal Standards Performance

Internal standard areas were within requirements of -50 percent to +100 percent of associated calibration internal standard areas. Retention time shifts for internal standards met requirements of less than 30 seconds.

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QA Case U175 (Organics)

Site: Willamette River

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11. GC/ECD Instrument Performance

a. Resolution Check Mixture

The resolution check mixture was analyzed at the proper frequency. Resolution (valley depth) between adjacent peaks was greater than 60 percent of the shorter peak.

b. Performance Evaluation Mixture

i. Frequency

Samples were analyzed at the proper frequency.

ii. Resolution

Resolution was greater than 90 percent for all adjacent peaks.

iii. Retention Time Windows

Retention times of all pesticides were within windows calculated from the initial calibration.

iv. Pesticide Recovery

Recovery for all single component pesticides and surrogate compounds were within QC limits of 75 to 125 percent for both GC columns.

v. DDT/Endrin Breakdown

The percent breakdown for 4,4'-DDT and Endrin was less than 20 percent for each compound and combined breakdown was less than 30 percent on both GC columns.

12. Pesticide Initial Calibration

a. Individual Standard Mixtures

Resolution between adjacent peaks for the initial calibration, mid level concentration was greater than 90 percent.

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QA Case U175 (Organics)

Site: Willamette River

Page 7

Retention time windows were calculated correctly.

Appropriate standards concentrations were used and peak heights of 50 to 100 percent of full scale were obtained.

Calibration factor percent relative standard deviation (%RSD) exceeded QC criteria of 20 percent for pesticides and 30 percent for surrogates listed below:

Date	GC Column	Compound	% Diff	Associated Samples
11/11/97	DB-5	delta-BHC	21.9	None
		4,4'-DDT	27.3	
11/19/97	DB-5	4,4'-DDT	25.1	None

Results and quantitation limits for analytes listed above have been qualified as estimated (J).

### 13. Pesticide Calibration Verification

Instrument blanks and PEM samples were analyzed at the proper frequency.

Resolution between adjacent peaks in individual pesticide mixtures exceeded 90 percent.

The difference between actual and calculated concentrations of individual pesticides exceeded QC criteria of  $\pm 25$  percent for the following pesticides:

Date	Time	GC Column	Compound	% Diff	Associated Samples
11/11/97	11:41	DB-5	4,4'-DDT	30	None
11/11/97	19:56	DB-5	4,4'-DDT	28	None
11/17/97	12:20	DB-5	4,4'-DDT	34	97424900, 97424902
11/17/97	20:35	DB-5	delta-BHC Endosulfan Sulfate Endrin Ketone	40 35 28	97424904, 97424906, 97424912
11/17/97	20:35	DB-608	alpha-Chlordane	-30	None

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QA Case U175 (Organics)

Site: Willamette River

Page 8

Date	Time	GC Column	Compound	% Diff	Associated Samples
11/19/97	15:39	DB-5	4,4'-DDT	32	None
11/19/97	23:53	DB-5	4,4'-DDT	28	97424900DL

Results and quantitation limits for pesticides listed above were qualified as estimated (J).

14. Pesticide Cleanup Checks

a. Florisil Cartridge Cleanup

Recovery for mixture A pesticides and surrogates were within QC limits of 80 to 120 percent. Recovery of 2,4,5-trichlorophenol was less than 5 percent as required.

b. Gel Permeation Cleanup (GPC)

All pesticides in the matrix spiking solution met recovery limits of 80 to 110 percent. Aroclor-1016 and 1260 patterns matched those of standards.

GPC blank concentrations did not exceed one-half the CRDL for any target analytes.

15. Sample Analysis

The following samples had percent differences between the columns greater than 35% for the listed analytes.

Sample Number	Compound	DB-5 Conc.	DB-608 Conc.	% Diff
97424900	4,4'-DDD	110	36	205.6
	4,4'-DDT	97	42	131
97424900DL	4,4'-DDD	81	53	52.8
97424902	4,4'-DDE	8.3	2.8	196.4
	4,4'-DDD	20	4.8	316.7
	4,4'-DDT	44	15	193.3
97424904	4,4'-DDD	5.6	3.3	69.7

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00662



QA Case U175 (Organics)

Site: Willamette River

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Sample Number	Compound	DB-5 Conc.	DB-608 Conc.	% Diff
97424906	Aroclor-1254	59	31	90
	Aroclor-1260	81	34	140
97424912	Aroclor-1254	60	39	54
	Aroclor-1260	120	73	64
97424912	4,4'-DDD	77	23	234.8
	4,4'-DDT	42	18	133.3

Differences can arise from analytical interferences on one column. However, the percent differences are not deemed significant at the reported concentrations. The lower concentration was reported for each analyte.

#### 16. Laboratory Contact

No laboratory contact was required.

#### Data Assessment

Upon consideration of the data qualifications noted above, the data are ACCEPTABLE for use except where flagged with data qualifiers that modify the usefulness of the individual values.

#### Data Qualifiers

U - The compound was analyzed for, but was not detected.

UJ - The compound was analyzed for, but was not detected. The associated quantitation limit is an estimate because quality control criteria were not met.

J - The analyte was positively identified, but the associated numerical value is an estimated quantity because quality control criteria were not met or because concentrations reported are less than the quantitation limit or lowest calibration standard.

R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification.

N - Presumptive evidence of presence of material (tentative identification).

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ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175A

LIMS ID: 97-19474

Matrix: Sediment

Data Release Authorized: *BWB*

Reported: 11/26/97

Sample No: 97424900

WR-SD- SD001- 0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 27.3 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.5%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	73 U
111-44-4	Bis-(2-Chloroethyl) Ether	150 U
95-57-8	2-Chlorophenol	73 U
541-73-1	1,3-Dichlorobenzene	73 U
106-46-7	1,4-Dichlorobenzene	73 U
100-51-6	Benzyl Alcohol	73 U <i>J</i>
95-50-1	1,2-Dichlorobenzene	73 U
95-48-7	2-Methylphenol	73 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	73 U
106-44-5	4-Methylphenol	450
621-64-7	N-Nitroso-Di-N-Propylamine	150 U
67-72-1	Hexachloroethane	73 U
98-95-3	Nitrobenzene	73 U
78-59-1	Isophorone	73 U
88-75-5	2-Nitrophenol	370 U
105-67-9	2,4-Dimethylphenol	73 U
65-85-0	Benzoic Acid	730 U
111-91-1	bis(2-Chloroethoxy) Methane	73 U
120-83-2	2,4-Dichlorophenol	220 U
120-82-1	1,2,4-Trichlorobenzene	73 U
91-20-3	Naphthalene	2,900
106-47-8	4-Chloroaniline	220 U
87-68-3	Hexachlorobutadiene	73 U
59-50-7	4-Chloro-3-methylphenol	150 U
91-57-6	2-Methylnaphthalene	1,400 <i>J</i>
77-47-4	Hexachlorocyclopentadiene	370 U <i>J</i>
88-06-2	2,4,6-Trichlorophenol	370 U
95-95-4	2,4,5-Trichlorophenol	370 U
91-58-7	2-Chloronaphthalene	73 U
88-74-4	2-Nitroaniline	370 U
131-11-3	Dimethylphthalate	73 U
208-96-8	Acenaphthylene	400
99-09-2	3-Nitroaniline	440 U <i>J</i>
83-32-9	Acenaphthene	4,100
51-28-5	2,4-Dinitrophenol	730 U <i>J</i>
100-02-7	4-Nitrophenol	370 U
132-64-9	Dibenzofuran	290
606-20-2	2,6-Dinitrotoluene	370 U

*MB*  
*12/19/98*  
*641*

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175A

LIMS ID: 97-19474

Matrix: Sediment

Data Release Authorized: *ONB*

Reported: 11/26/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424900

WR-SD- SD001 - 0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 27.3 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:1

Percent Moisture: 45.5%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	370 U
84-66-2	Diethylphthalate	73 U
7005-72-3	4-Chlorophenyl-phenylether	73 U
86-73-7	Fluorene	2,600
100-01-6	4-Nitroaniline	370 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	730 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	73 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	73 U
118-74-1	Hexachlorobenzene	73 U
87-86-5	Pentachlorophenol	370 U <i>J</i>
85-01-8	Phenanthrene	13,000 E 18000 D
86-74-8	Carbazole	370 <i>J</i>
120-12-7	Anthracene	3,000
84-74-2	Di-n-Butylphthalate	73 U
206-44-0	Fluoranthene	12,000 E 14000 D
129-00-0	Pyrene	13,000 E 19000 D
85-68-7	Butylbenzylphthalate	73 U
91-94-1	3,3'-Dichlorobenzidine	370 U
56-55-3	Benzo(a)anthracene	4,200
117-81-7	bis(2-Ethylhexyl)phthalate	73 U
218-01-9	Chrysene	5,300
117-84-0	Di-n-Octyl phthalate	73 U
205-99-2	Benzo(b)fluoranthene	4,200
207-08-9	Benzo(k)fluoranthene	2,900
50-32-8	Benzo(a)pyrene	5,700
193-39-5	Indeno(1,2,3-cd)pyrene	3,200
53-70-3	Dibenz(a,h)anthracene	830
191-24-2	Benzo(g,h,i)perylene	4,600

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.4%	d5-Phenol	64.0%
2-Fluorobiphenyl	66.6%	2-Fluorophenol	64.2%
d14-p-Terphenyl	72.2%	2,4,6-Tribromophenol	76.9%
d4-1,2-Dichlorobenzene	56.2%	d4-2-Chlorophenol	62.3%

FORM-1

00665

*JMB 12/19/98*  
*642*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424900

WR-SD- SD001-0600A

Lab Sample ID: U175A

QC Report No: U175-REGL, LLC

LIMS ID: 97-19474

Project: 1001-006

Matrix: Sediment

Date Sampled: 10/14/97

Date Received: 10/16/97

Data Release Authorized: AMH

Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene, _1-methyl_	12.10	SVOA	2,800 JN
2. --	Naphthalene, Dimethyl_Iso	13.14	SVOA	1,800 JN
3. --	Naphthalene, Dimethyl_Iso	13.31	SVOA	3,300 JN
4. 132-65-0	Dibenzothiophene	16.73	SVOA	3,100 JN
5. --	Unknown_PNA	17.59	SVOA	3,600 JN
6. --	Unknown_C15.H12_PNA	17.96	SVOA	2,600 JN
7. --	Unknown_C15.H12_PNA	18.02	SVOA	3,200 JN
8. --	Unknown_Aromatic	18.20	SVOA	6,300 JN
9. --	Unknown_C16.H12_PNA	18.57	SVOA	2,700 JN
10. --	Unknown	18.65	SVOA	2,100 JN
11. --	Unknown_C16.H14_PNA	19.11	SVOA	2,900 JN
12. --	Unknown_C16.H10_PNA	19.58	SVOA	2,500 JN
13. --	Unknown_Aromatic	20.51	SVOA	6,100 JN
14. --	Unknown_C17.H12_PNA	20.66	SVOA	2,000 JN
15. --	Unknown_PNA	21.87	SVOA	2,700 JN
16. --	Unknown_Aromatic	22.48	SVOA	1,900 JN
17. --	Unknown_C20.H12_PNA	24.77	SVOA	3,300 JN
18. --	Unknown_Aromatic	26.91	SVOA	1,800 JN
19. --	Unknown_C22.H12_PNA	27.34	SVOA	2,600 JN
20. --	Unknown	27.44	SVOA	2,200 JN

JMB 12/1998  
714

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175A

LIMS ID: 97-19474

Matrix: Sediment

Data Release Authorized: *AWB*

Reported: 11/26/97



Sample No. 97424900

DILUTION

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/14/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 27.3 g-dry-wt  
Final Extract Volume: 2.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 45.5%  
pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	730 U
111-44-4	Bis-(2-Chloroethyl) Ether	1,500 U
95-57-8	2-Chlorophenol	730 U
541-73-1	1,3-Dichlorobenzene	730 U
106-46-7	1,4-Dichlorobenzene	730 U
100-51-6	Benzyl Alcohol	730 U
95-50-1	1,2-Dichlorobenzene	730 U
95-48-7	2-Methylphenol	730 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	730 U
106-44-5	4-Methylphenol	730 U
621-64-7	N-Nitroso-Di-N-Propylamine	1,500 U
67-72-1	Hexachloroethane	730 U
98-95-3	Nitrobenzene	730 U
78-59-1	Isophorone	730 U
88-75-5	2-Nitrophenol	3,700 U
105-67-9	2,4-Dimethylphenol	730 U
65-85-0	Benzoic Acid	7,300 U
111-91-1	bis(2-Chloroethoxy) Methane	730 U
120-83-2	2,4-Dichlorophenol	2,200 U
120-82-1	1,2,4-Trichlorobenzene	730 U
91-20-3	Naphthalene	2,200
106-47-8	4-Chloroaniline	2,200 U
87-68-3	Hexachlorobutadiene	730 U
59-50-7	4-Chloro-3-methylphenol	1,500 U
91-57-6	2-Methylnaphthalene	1,000
77-47-4	Hexachlorocyclopentadiene	3,700 U
88-06-2	2,4,6-Trichlorophenol	3,700 U
95-95-4	2,4,5-Trichlorophenol	3,700 U
91-58-7	2-Chloronaphthalene	730 U
88-74-4	2-Nitroaniline	3,700 U
131-11-3	Dimethylphthalate	730 U
208-96-8	Acenaphthylene	730 U
99-09-2	3-Nitroaniline	4,400 U
83-32-9	Acenaphthene	3,600
51-28-5	2,4-Dinitrophenol	7,300 U
100-02-7	4-Nitrophenol	3,700 U
132-64-9	Dibenzofuran	730 U
606-20-2	2,6-Dinitrotoluene	3,700 U

FORM-1

00667

ANALYTICAL  
RESOURCES  
INCORPORATED

*JMB 12/1/98 61*

ANALYTICAL  
RESOURCES  
INCORPORATED



ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175A

LIMS ID: 97-19474

Matrix: Sediment

Data Release Authorized: *MMB*

Reported: 11/26/97

Sample No. 97424900  
DILUTION

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 27.3 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:10

Percent Moisture: 45.5%

pH: 7.5

CAS Number	Analyte	µg/kg
121-14-2	2,4-Dinitrotoluene	3,700 U
84-66-2	Diethylphthalate	730 U
7005-72-3	4-Chlorophenyl-phenylether	730 U
86-73-7	Fluorene	1,700
100-01-6	4-Nitroaniline	3,700 U
534-52-1	4,6-Dinitro-2-Methylphenol	7,300 U
86-30-6	N-Nitrosodiphenylamine	730 U
101-55-3	4-Bromophenyl-phenylether	730 U
118-74-1	Hexachlorobenzene	730 U
87-86-5	Pentachlorophenol	3,700 U
85-01-8	Phenanthrene	18,000
86-74-8	Carbazole	730 U
120-12-7	Anthracene	2,200
84-74-2	Di-n-Butylphthalate	730 U
206-44-0	Fluoranthene	14,000
129-00-0	Pyrene	19,000
85-68-7	Butylbenzylphthalate	730 U
91-94-1	3,3'-Dichlorobenzidine	3,700 U
56-55-3	Benzo(a)anthracene	3,500
117-81-7	bis(2-Ethylhexyl)phthalate	730 U
218-01-9	Chrysene	4,700
117-84-0	Di-n-Octyl phthalate	730 U
205-99-2	Benzo(b)fluoranthene	2,500
207-08-9	Benzo(k)fluoranthene	3,200
50-32-8	Benzo(a)pyrene	5,100
193-39-5	Indeno(1,2,3-cd)pyrene	3,200
53-70-3	Dibenz(a,h)anthracene	730 U
191-24-2	Benzo(g,h,i)perylene	4,800

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	52.8%	d5-Phenol	53.1%
2-Fluorobiphenyl	52.8%	2-Fluorophenol	54.4%
d14-p-Terphenyl	58.0%	2,4,6-Tribromophenol	56.0%
d4-1,2-Dichlorobenzene	47.6%	d4-2-Chlorophenol	52.3%

FORM-1

00668

MMB  
11/27/98  
6



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424900  
DILUTION  
Lab Sample ID: U175A QC Report No: U175-REGL, LLC  
LIMS ID: 97-19474 Project:  
Matrix: Sediment 1001-006  
Date Sampled: 10/14/97  
Date Received: 10/16/97

Data Release Authorized: *MRP*

Reported: 11/26/97

Date Analyzed: 11/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown _____	8.98	SVOA	1,500 J N
2. ---	Unknown_Hydrocarbon_____	12.36	SVOA	1,600 J N
3. 90-12-0	Naphthalene,_1-methyl_____	13.10	SVOA	2,900 J N
4. ---	Unknown_Hydrocarbon_____	13.57	SVOA	2,200 J N
5. ---	Naphthalene,_Ethyl_Isomer_____	14.01	SVOA	1,600 J N
6. ---	Naphthalene,_Dimethyl_Iso_____	14.14	SVOA	1,900 J N
7. ---	Naphthalene,_Dimethyl_Iso_____	14.31	SVOA	3,300 J N
8. ---	Unknown_Hydrocarbon_____	14.49	SVOA	2,100 J N
9. ---	Unknown_Hydrocarbon_____	16.35	SVOA	3,000 J N
10. ---	Unknown_Hydrocarbon_____	16.88	SVOA	3,400 J N
11. 132-65-0	Dibenzothiophene_____	17.75	SVOA	1,800 J N
12. ---	Unknown_Hydrocarbon_____	17.83	SVOA	2,300 J N
13. ---	Unknown_Aromatic_____	19.21	SVOA	2,300 J N
14. ---	Unknown_____	19.93	SVOA	1,700 J N
15. ---	Unknown_PNA_____	21.50	SVOA	2,700 J N
16. ---	Unknown_PNA_____	22.89	SVOA	3,000 J N
17. ---	Unknown_Hydrocarbon_____	24.25	SVOA	2,300 J N
18. ---	Unknown_C20.H12_PNA_____	25.79	SVOA	3,400 J N
19. ---	Unknown_____	28.93	SVOA	2,500 J N
20. _____	_____	_____	_____	_____

FORM-1-B

00669

MM 12/1998  
715

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175C

LIMS ID: 97-19476

Matrix: Sediment

Data Release Authorized: *MMB*

Reported: 11/26/97



Sample No: 97424902

ANALYTICAL  
RESOURCES  
INCORPORATED

WR-SD- SD074-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.1%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	160
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	400
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	330
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	86
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	62
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	92
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	59
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00670

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## ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175C

LIMS ID: 97-19476

Matrix: Sediment

Data Release Authorized: *BYP*

Reported: 11/26/97

ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424902

WR-SD - SD074-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 49.1%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	100
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	520
86-74-8	Carbazole	20 U <i>J</i>
120-12-7	Anthracene	120
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	630
129-00-0	Pyrene	860
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	220
117-81-7	bis(2-Ethylhexyl)phthalate	48
218-01-9	Chrysene	330
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	220
207-08-9	Benzo(k)fluoranthene	190
50-32-8	Benzo(a)pyrene	250
193-39-5	Indeno(1,2,3-cd)pyrene	180
53-70-3	Dibenz(a,h)anthracene	47
191-24-2	Benzo(g,h,i)perylene	260

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.7%	d5-Phenol	54.3%
2-Fluorobiphenyl	56.4%	2-Fluorophenol	53.9%
d14-p-Terphenyl	58.7%	2,4,6-Tribromophenol	63.0%
d4-1,2-Dichlorobenzene	46.8%	d4-2-Chlorophenol	52.5%

FORM-1

00671

*9/21/98  
127740*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424902 WR-SD- SD074- 0000A  
Lab Sample ID: U175C QC Report No: U175-REGL, LLC  
LIMS ID: 97-19476 Project: 1001-006  
Matrix: Sediment Date Sampled: 10/14/97  
Date Received: 10/16/97  
Data Release Authorized: *CMB*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Alkyl_Benzene	8.29	SVOA	180 J N
2. --	Unknown_Aromatic	9.53	SVOA	93 J N
3. --	Unknown_Aromatic	9.75	SVOA	100 J N
4. --	Unknown	10.43	SVOA	140 J N
5. --	Unknown_Cycloalkane	10.93	SVOA	120 J N
6. --	Unknown	11.09	SVOA	120 J N
7. --	Unknown	11.21	SVOA	130 J N
8. --	Unknown	11.61	SVOA	150 J N
9. 90-12-0	Naphthalene,_1-methyl-	12.09	SVOA	110 J N
10. --	Unknown	12.85	SVOA	160 J N
11. --	Unknown_Aromatic	13.03	SVOA	210 J N
12. --	Naphthalene,_Dimethyl_Iso	13.14	SVOA	93 J N
13. --	Naphthalene,_Dimethyl_Iso	13.32	SVOA	240 J N
14. --	Unknown	18.11	SVOA	130 J N
15. --	Unknown	18.45	SVOA	260 J N
16. --	Unknown	18.69	SVOA	440 J N
17. --	Unknown	23.36	SVOA	380 J N
18. --	Unknown	26.30	SVOA	160 J N
19. --	Unknown_Sterol_type	27.30	SVOA	310 J N
20. --	Unknown	27.39	SVOA	190 J N

FORM-1-B  
00672

*JMB  
11/21/98  
768*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175D

LIMS ID: 97-19477

Matrix: Sediment

Data Release Authorized: *BMB*

Reported: 11/26/97

Sample No: 97424903 WR-SD-SD136-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 39.3%

pH: 7.5

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	19 U
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	190 U
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	19 U
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00673

*JMB 11/27/98*  
*792*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175D

LIMS ID: 97-19477

Matrix: Sediment

Data Release Authorized: *OMB*

Reported: 11/26/97

Sample No: 97424903

WR-SD-SD136-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 39.3%

pH: 7.5

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	61
86-74-8	Carbazole	19 U
120-12-7	Anthracene	19 U
84-74-2	Di-n-Butylphthalate	44
206-44-0	Fluoranthene	130
129-00-0	Pyrene	130
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	40
117-81-7	bis(2-Ethylhexyl)phthalate	370
218-01-9	Chrysene	60
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	46
207-08-9	Benzo(k)fluoranthene	42
50-32-8	Benzo(a)pyrene	48
193-39-5	Indeno(1,2,3-cd)pyrene	33
53-70-3	Dibenz(a,h)anthracene	19 U
191-24-2	Benzo(g,h,i)perylene	48

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	49.6%	d5-Phenol	57.8%
2-Fluorobiphenyl	63.8%	2-Fluorophenol	52.9%
d14-p-Terphenyl	71.4%	2,4,6-Tribromophenol	76.2%
d4-1,2-Dichlorobenzene	46.6%	d4-2-Chlorophenol	51.3%

FORM-1  
00674

*JMB 11/27/98  
793*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

WR-SD - SD136-0000A

Sample No: 97424903

Lab Sample ID: U175D  
LIMS ID: 97-19477  
Matrix: Sediment

QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/14/97  
Date Received: 10/16/97

Data Release Authorized: *DRB*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.64	SVOA	53 JNB-R
2. --	Unknown	6.88	SVOA	46 J N
3. --	Unknown_Organic_Acid	9.52	SVOA	50 J N
4. --	Unknown	11.03	SVOA	72 J N
5. --	Unknown	11.34	SVOA	45 J N
6. --	Unknown_Alcohol	13.69	SVOA	41 JB-R
7. --	Unknown	13.75	SVOA	48 J N
8. --	Unknown	14.53	SVOA	54 J N
9. --	Unknown	15.68	SVOA	60 J N
10. --	Unknown_Phenol	15.99	SVOA	65 J N
11. --	Unknown	16.07	SVOA	82 J N
12. --	Unknown	16.14	SVOA	81 J N
13. --	Unknown_Phenol	16.21	SVOA	60 J N
14. --	Unknown	16.26	SVOA	86 J N
15. --	Unknown_Phenol	16.35	SVOA	81 J N
16. --	Unknown	16.54	SVOA	260 J N
17. --	Unknown	16.79	SVOA	260 J N
18. --	Unknown	19.09	SVOA	210 J N
19. --	Unknown	19.55	SVOA	150 J N
20. --	Unknown	27.34	SVOA	160 J N

FORM-1-B

00675.

*JMB* 812  
*127198*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175E

LIMS ID: 97-19478

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/26/97

Sample No: 97424904

WR-SD-SD141-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.8%

pH: 7.2

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	230
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	97 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	860
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	120
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	59
77-47-4	Hexachlorocyclopentadiene	97 U
88-06-2	2,4,6-Trichlorophenol	97 U
95-95-4	2,4,5-Trichlorophenol	97 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	97 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	30
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	86
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	97 U
132-64-9	Dibenzofuran	34
606-20-2	2,6-Dinitrotoluene	97 U

FORM-1

00676

MMB 12/19/97  
836

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175E

LIMS ID: 97-19478

Matrix: Sediment

Data Release Authorized: *AWP*

Reported: 11/26/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424904

WR-SD- SD141-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 50.8%

pH: 7.2

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	97 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	87
100-01-6	4-Nitroaniline	97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190 U
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	97 U
85-01-8	Phenanthrene	400
86-74-8	Carbazole	19 U
120-12-7	Anthracene	85
84-74-2	Di-n-Butylphthalate	23
206-44-0	Fluoranthene	450
129-00-0	Pyrene	650
85-68-7	Butylbenzylphthalate	19 U
91-94-1	3,3'-Dichlorobenzidine	97 U
56-55-3	Benzo(a)anthracene	180
117-81-7	bis(2-Ethylhexyl)phthalate	200
218-01-9	Chrysene	250
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	190
207-08-9	Benzo(k)fluoranthene	140
50-32-8	Benzo(a)pyrene	200
193-39-5	Indeno(1,2,3-cd)pyrene	150
53-70-3	Dibenz(a,h)anthracene	53
191-24-2	Benzo(g,h,i)perylene	220

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	58.7%	d5-Phenol	67.3%
2-Fluorobiphenyl	71.9%	2-Fluorophenol	63.5%
d14-p-Terphenyl	80.9%	2,4,6-Tribromophenol	83.1%
d4-1,2-Dichlorobenzene	52.7%	d4-2-Chlorophenol	61.7%

FORM-1

00677

JMB 12/21/98  
837



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424904

WR-SD- SD141-0000A

Lab Sample ID: U175E  
LIMS ID: 97-19478  
Matrix: Sediment

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/14/97  
Date Received: 10/16/97

Data Release Authorized: *BPA*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown _____	8.08	SVOA	700 J N
2.	-- Unknown _____	10.26	SVOA	210 J N
3.	-- Unknown_Cycloalkane _____	10.93	SVOA	120 J N
4.	-- Unknown _____	11.09	SVOA	140 J N
5.	-- Unknown _____	11.21	SVOA	150 J N
6.	-- Unknown _____	11.61	SVOA	390 J N
7.	90-12-0 Naphthalene,_1-methyl_	12.10	SVOA	150 J N
8.	-- Unknown_Cycloalkane _____	12.31	SVOA	140 J N
9.	-- Unknown _____	12.85	SVOA	170 J N
10.	-- Unknown_Aromatic _____	13.04	SVOA	270 J N
11.	-- Naphthalene,_Dimethyl_Iso	13.15	SVOA	190 J N
12.	-- Naphthalene,_Dimethyl_Iso	13.31	SVOA	280 J N
13.	-- Unknown_Aromatic _____	14.20	SVOA	170 J N
14.	-- Unknown_Aromatic _____	14.48	SVOA	280 J N
15.	-- Naphthalene,_Trimethyl_Is	14.69	SVOA	170 J N
16.	-- Unknown _____	18.44	SVOA	360 J N
17.	-- Unknown _____	18.68	SVOA	460 J N
18.	-- Unknown_Sterol_type _____	25.83	SVOA	150 J N
19.	-- Unknown _____	27.39	SVOA	580 J N
20.	-- Unknown _____	27.50	SVOA	660 J N

FORM-1-B

00678

gmb 12/1/98  
867



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175G

LIMS ID: 97-19480

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/26/97

Sample No: 97424906

WR-SD-SD138-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.9%

pH: 7.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	19 U
111-44-4	Bis-(2-Chloroethyl) Ether	38 U
95-57-8	2-Chlorophenol	19 U
541-73-1	1,3-Dichlorobenzene	19 U
106-46-7	1,4-Dichlorobenzene	19 U
100-51-6	Benzyl Alcohol	19 U
95-50-1	1,2-Dichlorobenzene	19 U
95-48-7	2-Methylphenol	19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19 U
106-44-5	4-Methylphenol	50
621-64-7	N-Nitroso-Di-N-Propylamine	38 U
67-72-1	Hexachloroethane	19 U
98-95-3	Nitrobenzene	19 U
78-59-1	Isophorone	19 U
88-75-5	2-Nitrophenol	96 U
105-67-9	2,4-Dimethylphenol	19 U
65-85-0	Benzoic Acid	560
111-91-1	bis(2-Chloroethoxy) Methane	19 U
120-83-2	2,4-Dichlorophenol	58 U
120-82-1	1,2,4-Trichlorobenzene	19 U
91-20-3	Naphthalene	35
106-47-8	4-Chloroaniline	58 U
87-68-3	Hexachlorobutadiene	19 U
59-50-7	4-Chloro-3-methylphenol	38 U
91-57-6	2-Methylnaphthalene	19 U
77-47-4	Hexachlorocyclopentadiene	96 U
88-06-2	2,4,6-Trichlorophenol	96 U
95-95-4	2,4,5-Trichlorophenol	96 U
91-58-7	2-Chloronaphthalene	19 U
88-74-4	2-Nitroaniline	96 U
131-11-3	Dimethylphthalate	19 U
208-96-8	Acenaphthylene	19 U
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	19 U
51-28-5	2,4-Dinitrophenol	190 U
100-02-7	4-Nitrophenol	96 U
132-64-9	Dibenzofuran	19 U
606-20-2	2,6-Dinitrotoluene	96 U

FORM-1

00679

JMB  
11/27/98  
891



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175G

LIMS ID: 97-19480

Matrix: Sediment

Data Release Authorized: *ANB*

Reported: 11/26/97

Sample No: 97424906

WR-SD-SD138-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 52.1 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 47.9%

pH: 7.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	96 U
84-66-2	Diethylphthalate	19 U
7005-72-3	4-Chlorophenyl-phenylether	19 U
86-73-7	Fluorene	19 U
100-01-6	4-Nitroaniline	96 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	190 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	19 U
101-55-3	4-Bromophenyl-phenylether	19 U
118-74-1	Hexachlorobenzene	19 U
87-86-5	Pentachlorophenol	96 U <i>J</i>
85-01-8	Phenanthrene	92
86-74-8	Carbazole	31 <i>J</i>
120-12-7	Anthracene	21
84-74-2	Di-n-Butylphthalate	22
206-44-0	Fluoranthene	130
129-00-0	Pyrene	150
85-68-7	Butylbenzylphthalate	37
91-94-1	3,3'-Dichlorobenzidine	96 U
56-55-3	Benzo(a)anthracene	63
117-81-7	bis(2-Ethylhexyl)phthalate	820
218-01-9	Chrysene	90
117-84-0	Di-n-Octyl phthalate	19 U
205-99-2	Benzo(b)fluoranthene	79
207-08-9	Benzo(k)fluoranthene	69
50-32-8	Benzo(a)pyrene	70
193-39-5	Indeno(1,2,3-cd)pyrene	47
53-70-3	Dibenz(a,h)anthracene	20
191-24-2	Benzo(g,h,i)perylene	62

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	62.6%	d5-Phenol	72.4%
2-Fluorobiphenyl	75.8%	2-Fluorophenol	68.0%
d14-p-Terphenyl	86.5%	2,4,6-Tribromophenol	93.9%
d4-1,2-Dichlorobenzene	56.1%	d4-2-Chlorophenol	66.3%

FORM-1

00680

*JMB 1/27/98*  
*892*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: U175G  
LIMS ID: 97-19480  
Matrix: Sediment

Sample No: 97424906 WR-SD- SD138- 0000 A  
QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/14/97  
Date Received: 10/16/97

Data Release Authorized: *CKP*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro	6.65	SVOA	74 JNB R
2. --	Unknown_Aromatic_____	7.39	SVOA	69 JN
3. --	Unknown_Alcohol_____	8.10	SVOA	800 JN
4. --	Unknown_Organic_Acid_____	9.58	SVOA	130 JN
5. --	Unknown_Quinone_____	11.63	SVOA	280 JN
6. --	Unknown_Alcohol_____	13.69	SVOA	130 JNB
7. --	Unknown_Phenol_____	15.13	SVOA	94 JN
8. --	Unknown_____	15.69	SVOA	84 JN
9. --	Unknown_Alcohol_____	16.08	SVOA	130 JN
10. --	Unknown_____	16.27	SVOA	88 JN
11. --	Unknown_Alcohol_____	16.47	SVOA	110 JN
12. --	Unknown_____	16.78	SVOA	190 JN
13. --	Unknown_____	18.66	SVOA	220 JN
14. --	Unknown_____	18.79	SVOA	220 JN
15. --	Unknown_Aromatic_____	23.28	SVOA	190 JN
16. --	Unknown_Sterol_type_____	25.81	SVOA	130 JN
17. --	Unknown_____	26.08	SVOA	190 JN
18. --	Unknown_____	26.29	SVOA	130 JN
19. --	Unknown_____	27.40	SVOA	290 JN
20. --	Unknown_____	27.49	SVOA	440 JN

FORM-1-B

00681

919  
JMB  
11/21/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175H

LIMS ID: 97-19481

Matrix: Sediment

Data Release Authorized: *OMS*

Reported: 11/26/97

Sample No: 97424907

WR-SD - SDD13-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.2%

pH: 7.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	230
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	1,000
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	390
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	94
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	640
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	240
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

0068?

943

JMB  
11/7/98

ANALYTICAL  
RESOURCES  
INCORPORATED



ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175H

LIMS ID: 97-19481

Matrix: Sediment

Data Release Authorized: *ONP*

Reported: 11/26/97

Sample No: 97424907

WR~ SD- SDO13- 0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nti

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 46.2%

pH: 7.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	520
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	2,700 <i>E</i> <i>D</i>
86-74-8	Carbazole	93 <i>S</i>
120-12-7	Anthracene	550
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	2,000 <i>E</i> 2100 <i>D</i>
129-00-0	Pyrene	2,800 <i>E</i> 2600 <i>D</i>
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	890
117-81-7	bis(2-Ethylhexyl)phthalate	220
218-01-9	Chrysene	1,100
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	790
207-08-9	Benzo(k)fluoranthene	430
50-32-8	Benzo(a)pyrene	930
193-39-5	Indeno(1,2,3-cd)pyrene	680
53-70-3	Dibenz(a,h)anthracene	220
191-24-2	Benzo(g,h,i)perylene	920

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	60.4%	d5-Phenol	66.1%
2-Fluorobiphenyl	71.9%	2-Fluorophenol	65.8%
d14-p-Terphenyl	80.9%	2,4,6-Tribromophenol	78.1%
d4-1,2-Dichlorobenzene	57.6%	d4-2-Chlorophenol	63.5%

FORM-1

00683

944

JMB  
127198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: U175H  
LIMS ID: 97-19481  
Matrix: Sediment

Sample No: 97424907 WR-SD - SDO13-0000A  
QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *MMB*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1.	-- Unknown_Ketone	6.88	SVOA	140 J N
2.	-- Unknown_Cycloalkane	9.53	SVOA	130 J N
3.	-- Unknown_Aromatic	9.76	SVOA	170 J N
4.	-- Unknown	10.44	SVOA	210 J N
5.	-- Unknown_Cycloalkane	10.94	SVOA	240 J N
6.	-- Unknown_Cycloalkane	11.10	SVOA	220 J N
7.	-- Unknown	11.22	SVOA	240 J N
8. 90-12-0	Naphthalene,_1-methyl_	12.11	SVOA	700 J N
9.	-- Unknown_Cycloalkane	12.33	SVOA	190 J N
10.	-- Unknown	12.41	SVOA	160 J N
11.	-- Naphthalene,_Ethyl_Isomer	13.03	SVOA	410 J N
12.	-- Naphthalene,_Dimethyl_Iso	13.16	SVOA	320 J N
13.	-- Naphthalene,_Dimethyl_Iso	13.33	SVOA	510 J N
14.	-- Unknown_Aromatic	14.22	SVOA	170 J N
15.	-- Naphthalene,_Trimethyl_Is	14.51	SVOA	380 J N
16.	-- Unknown_PNA	18.26	SVOA	430 J N
17.	-- Unknown	18.71	SVOA	440 J N
18.	-- Unknown_C18.H18_PNA	20.62	SVOA	1,500 J N
19.	-- Unknown	27.35	SVOA	290 J N
20.	-- Unknown	27.44	SVOA	220 J N

ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175H

LIMS ID: 97-19481

Matrix: Sediment

Data Release Authorized: *NO*

Reported: 11/26/97



Sample No. 97424907  
DILUTION

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nti

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 46.2%

pH: 7.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	200 U
111-44-4	Bis-(2-Chloroethyl) Ether	390 U
95-57-8	2-Chlorophenol	200 U
541-73-1	1,3-Dichlorobenzene	200 U
106-46-7	1,4-Dichlorobenzene	200 U
100-51-6	Benzyl Alcohol	200 U
95-50-1	1,2-Dichlorobenzene	200 U
95-48-7	2-Methylphenol	200 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	200 U
106-44-5	4-Methylphenol	200 U
621-64-7	N-Nitroso-Di-N-Propylamine	390 U
67-72-1	Hexachloroethane	200 U
98-95-3	Nitrobenzene	200 U
78-59-1	Isophorone	200 U
88-75-5	2-Nitrophenol	980 U
105-67-9	2,4-Dimethylphenol	200 U
65-85-0	Benzoic Acid	2,000 U
111-91-1	bis(2-Chlorothoxy) Methane	200 U
120-83-2	2,4-Dichlorophenol	590 U
120-82-1	1,2,4-Trichlorobenzene	200 U
91-20-3	Naphthalene	790
106-47-8	4-Chloroaniline	590 U
87-68-3	Hexachlorobutadiene	200 U
59-50-7	4-Chloro-3-methylphenol	390 U
91-57-6	2-Methylnaphthalene	300
77-47-4	Hexachlorocyclopentadiene	980 U
88-06-2	2,4,6-Trichlorophenol	980 U
95-95-4	2,4,5-Trichlorophenol	980 U
91-58-7	2-Chloronaphthalene	200 U
88-74-4	2-Nitroaniline	980 U
131-11-3	Dimethylphthalate	200 U
208-96-8	Acenaphthylene	200 U
99-09-2	3-Nitroaniline	1,200 U
83-32-9	Acenaphthene	510
51-28-5	2,4-Dinitrophenol	2,000 U
100-02-7	4-Nitrophenol	980 U
132-64-9	Dibenzofuran	200 U
606-20-2	2,6-Dinitrotoluene	980 U

FORM-1

00685

972

JMB  
1/27/98



ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175H

LIMS ID: 97-19481

Matrix: Sediment

Data Release Authorized: *AWB*

Reported: 11/26/97

Sample No. 97424907  
DILUTION

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 46.2%  
pH: 7.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	980 U
84-66-2	Diethylphthalate	200 U
7005-72-3	4-Chlorophenyl-phenylether	200 U
86-73-7	Fluorene	320
100-01-6	4-Nitroaniline	980 U
534-52-1	4,6-Dinitro-2-Methylphenol	2,000 U
86-30-6	N-Nitrosodiphenylamine	200 U
101-55-3	4-Bromophenyl-phenylether	200 U
118-74-1	Hexachlorobenzene	200 U
87-86-5	Pentachlorophenol	980 U
85-01-8	Phenanthrene	2,700
86-74-8	Carbazole	200 U
120-12-7	Anthracene	420
84-74-2	Di-n-Butylphthalate	200 U
206-44-0	Fluoranthene	2,100
129-00-0	Pyrene	2,600
85-68-7	Butylbenzylphthalate	200 U
91-94-1	3,3'-Dichlorobenzidine	980 U
56-55-3	Benzo(a)anthracene	630
117-81-7	bis(2-Ethylhexyl)phthalate	220
218-01-9	Chrysene	930
117-84-0	Di-n-Octyl phthalate	200 U
205-99-2	Benzo(b)fluoranthene	460
207-08-9	Benzo(k)fluoranthene	500
50-32-8	Benzo(a)pyrene	720
193-39-5	Indeno(1,2,3-cd)pyrene	440
53-70-3	Dibenz(a,h)anthracene	200 U
191-24-2	Benzo(g,h,i)perylene	680

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	50.4%	d5-Phenol	56.5%
2-Fluorobiphenyl	53.2%	2-Fluorophenol	57.9%
d14-p-Terphenyl	62.4%	2,4,6-Tribromophenol	62.7%
d4-1,2-Dichlorobenzene	49.6%	d4-2-Chlorophenol	52.3%

FORM-1

00686

973

*JMB*  
11-198



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: U175H  
LIMS ID: 97-19481  
Matrix: Sediment

Sample No: 97424907  
DILUTION  
QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *MJS*  
Reported: 11/26/97

Date Analyzed: 11/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene, 1-methyl-	13.10	SVOA	730 J N
2. ---	Unknown	13.83	SVOA	520 J N
3. ---	Naphthalene, Ethyl Isomer	14.01	SVOA	450 J N
4. ---	Naphthalene, Dimethyl Iso	14.13	SVOA	470 J N
5. ---	Naphthalene, Dimethyl Iso	14.31	SVOA	470 J N
6. ---	Unknown	15.39	SVOA	760 J N
7. ---	Naphthalene, Trimethyl Is	15.66	SVOA	550 J N
8. ---	Unknown_Aromatic	17.27	SVOA	590 J N
9. 132-65-0	Dibenzothiophene	17.75	SVOA	400 J N
10. ---	Unknown_C15.H12_PNA	18.99	SVOA	700 J N
11. ---	Unknown_C15.H12_PNA	19.12	SVOA	530 J N
12. ---	Unknown_Aromatic	19.22	SVOA	1,100 J N
13. ---	Unknown_Aromatic	20.56	SVOA	930 J N
14. ---	Unknown_PNA	21.52	SVOA	10,000 J N
15. ---	Unknown	25.09	SVOA	1,000 J N
16. ---	Unknown	26.46	SVOA	1,400 J N
17. ---	Unknown	27.48	SVOA	1,000 J N
18. ---	Unknown	28.82	SVOA	560 J N
19. ---	Unknown	28.94	SVOA	1,100 J N
20. ---	Unknown	29.13	SVOA	820 J N



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175I

LIMS ID: 97-19482

Matrix: Sediment

Data Release Authorized: *MB*

Reported: 11/26/97

Sample No: 97424909

WR-SD-SD007-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.1%

pH: 7.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	20 U
111-44-4	Bis-(2-Chloroethyl) Ether	39 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20 U
106-44-5	4-Methylphenol	240
621-64-7	N-Nitroso-Di-N-Propylamine	39 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	98 U
105-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	200 U
111-91-1	bis(2-Chloroethoxy) Methane	20 U
120-83-2	2,4-Dichlorophenol	59 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	1,000
106-47-8	4-Chloroaniline	59 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-methylphenol	39 U
91-57-6	2-Methylnaphthalene	360
77-47-4	Hexachlorocyclopentadiene	98 U
88-06-2	2,4,6-Trichlorophenol	98 U
95-95-4	2,4,5-Trichlorophenol	98 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	98 U
131-11-3	Dimethylphthalate	20 U
208-96-8	Acenaphthylene	71
99-09-2	3-Nitroaniline	120 U
83-32-9	Acenaphthene	600
51-28-5	2,4-Dinitrophenol	200 U
100-02-7	4-Nitrophenol	98 U
132-64-9	Dibenzofuran	150
606-20-2	2,6-Dinitrotoluene	98 U

FORM-1

00688

JMB 1044  
127/98

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175I

LIMS ID: 97-19482

Matrix: Sediment

Data Release Authorized: *JMB*

Reported: 11/26/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424909

WR-SD- SD007- 0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 43.1%

pH: 7.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	98 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	360
100-01-6	4-Nitroaniline	98 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	200 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	20 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	98 U <i>J</i>
85-01-8	Phenanthrene	1,600 <del>E</del> 1500 D
86-74-8	Carbazole	73 <i>J</i>
120-12-7	Anthracene	360
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	1,400
129-00-0	Pyrene	1,900 <del>E</del> 2000 D
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	98 U
56-55-3	Benzo(a)anthracene	600
117-81-7	bis(2-Ethylhexyl)phthalate	37
218-01-9	Chrysene	800
117-84-0	Di-n-Octyl phthalate	20 U
205-99-2	Benzo(b)fluoranthene	620
207-08-9	Benzo(k)fluoranthene	410
50-32-8	Benzo(a)pyrene	770
193-39-5	Indeno(1,2,3-cd)pyrene	540
53-70-3	Dibenz(a,h)anthracene	150
191-24-2	Benzo(g,h,i)perylene	770

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	54.5%	d5-Phenol	62.7%
2-Fluorobiphenyl	71.1%	2-Fluorophenol	56.2%
d14-p-Terphenyl	82.6%	2,4,6-Tribromophenol	81.8%
d4-1,2-Dichlorobenzene	49.0%	d4-2-Chlorophenol	56.5%

FORM-1

00689

*JMB*  
11/27/98 1045



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424909

WR-SD-SD007-0000A

Lab Sample ID: U175I  
LIMS ID: 97-19482  
Matrix: Sediment

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *ANR*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. --	Unknown_Alcohol_____	8.10	SVOA	650 J N
2. --	Unknown_Aromatic_____	8.76	SVOA	110 J N
3. --	Unknown_Cycloalkane_____	9.76	SVOA	120 J N
4. --	Unknown_Cycloalkane_____	10.44	SVOA	160 J N
5. --	Unknown_Cycloalkane_____	10.94	SVOA	130 J N
6. --	Unknown_Cycloalkane_____	11.10	SVOA	140 J N
7. --	Unknown_____	11.22	SVOA	160 J N
8. 90-12-0	Naphthalene,_1-methyl_____	12.11	SVOA	320 J N
9. --	Unknown_Cycloalkane_____	12.33	SVOA	130 J N
10. --	Unknown_____	12.42	SVOA	110 J N
11. --	Unknown_PNA + C.E._____	12.86	SVOA	200 J N
12. --	Naphthalene,_Ethyl_Isomer	13.03	SVOA	250 J N
13. --	Naphthalene,_Dimethyl_Iso	13.16	SVOA	180 J N
14. --	Naphthalene,_Dimethyl_Iso	13.34	SVOA	270 J N
15. --	Unknown_____	13.55	SVOA	550 J N
16. --	Unknown_Phenol_____	15.16	SVOA	170 J N
17. --	Unknown_Aromatic_____	18.23	SVOA	280 J N
18. --	Unknown_____	18.69	SVOA	290 J N
19. --	Unknown_PNA + C.E._____	27.40	SVOA	300 J N
20. --	Unknown_____	27.51	SVOA	420 J N

FORM-1-B  
00690

1073

JMB  
11/21/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175I

LIMS ID: 97-19482

Matrix: Sediment

Data Release Authorized: *ONP*

Reported: 11/26/97



Sample No. 97424909  
DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:5  
Percent Moisture: 43.1%  
pH: 7.8

CAS Number	Analyte	ug/kg
108-95-2	Phenol	98 U
111-44-4	Bis-(2-Chloroethyl) Ether	200 U
95-57-8	2-Chlorophenol	98 U
541-73-1	1,3-Dichlorobenzene	98 U
106-46-7	1,4-Dichlorobenzene	98 U
100-51-6	Benzyl Alcohol	98 U
95-50-1	1,2-Dichlorobenzene	98 U
95-48-7	2-Methylphenol	98 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	98 U
106-44-5	4-Methylphenol	190
621-64-7	N-Nitroso-Di-N-Propylamine	200 U
67-72-1	Hexachloroethane	98 U
98-95-3	Nitrobenzene	98 U
78-59-1	Isophorone	98 U
88-75-5	2-Nitrophenol	490 U
105-67-9	2,4-Dimethylphenol	98 U
65-85-0	Benzoic Acid	980 U
111-91-1	bis(2-Chloroethoxy) Methane	98 U
120-83-2	2,4-Dichlorophenol	290 U
120-82-1	1,2,4-Trichlorobenzene	98 U
91-20-3	Naphthalene	800
106-47-8	4-Chloroaniline	290 U
87-68-3	Hexachlorobutadiene	98 U
59-50-7	4-Chloro-3-methylphenol	200 U
91-57-6	2-Methylnaphthalene	250
77-47-4	Hexachlorocyclopentadiene	490 U
88-06-2	2,4,6-Trichlorophenol	490 U
95-95-4	2,4,5-Trichlorophenol	490 U
91-58-7	2-Chloronaphthalene	98 U
88-74-4	2-Nitroaniline	490 U
131-11-3	Dimethylphthalate	98 U
208-96-8	Acenaphthylene	98 U
99-09-2	3-Nitroaniline	590 U
83-32-9	Acenaphthene	430
51-28-5	2,4-Dinitrophenol	980 U <i>J</i>
100-02-7	4-Nitrophenol	490 U
132-64-9	Dibenzofuran	99
606-20-2	2,6-Dinitrotoluene	490 U

FORM-1

00691

1097

*JMB*  
*1097*



ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175I

LIMS ID: 97-19482

Matrix: Sediment

Data Release Authorized: *GWP*

Reported: 11/26/97

Sample No. 97424909

DILUTION

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 51.2 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:5

Percent Moisture: 43.1%

pH: 7.8

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	490 U
84-66-2	Diethylphthalate	98 U
7005-72-3	4-Chlorophenyl-phenylether	98 U
86-73-7	Fluorene	190
100-01-6	4-Nitroaniline	490 U
534-52-1	4,6-Dinitro-2-Methylphenol	980 U
86-30-6	N-Nitrosodiphenylamine	98 U
101-55-3	4-Bromophenyl-phenylether	98 U
118-74-1	Hexachlorobenzene	98 U
87-86-5	Pentachlorophenol	490 U
85-01-8	Phenanthrene	1,500
86-74-8	Carbazole	98 U
120-12-7	Anthracene	230
84-74-2	Di-n-Butylphthalate	98 U
206-44-0	Fluoranthene	1,400
129-00-0	Pyrene	2,000
85-68-7	Butylbenzylphthalate	98 U
91-94-1	3,3'-Dichlorobenzidine	490 U
56-55-3	Benzo(a)anthracene	400
117-81-7	bis(2-Ethylhexyl)phthalate	98 U
218-01-9	Chrysene	620
117-84-0	Di-n-Octyl phthalate	98 U
205-99-2	Benzo(b)fluoranthene	330
207-08-9	Benzo(k)fluoranthene	400
50-32-8	Benzo(a)pyrene	590
193-39-5	Indeno(1,2,3-cd)pyrene	420
53-70-3	Dibenz(a,h)anthracene	100
191-24-2	Benzo(g,h,i)perylene	580

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	44.0%	d5-Phenol	50.5%
2-Fluorobiphenyl	50.0%	2-Fluorophenol	46.0%
d14-p-Terphenyl	65.2%	2,4,6-Tribromophenol	59.7%
d4-1,2-Dichlorobenzene	38.2%	d4-2-Chlorophenol	43.1%

FORM-1

00692

JMB 1098  
11/27/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424909  
DILUTION  
Lab Sample ID: U175I QC Report No: U175-REGL, LLC  
LIMS ID: 97-19482 Project: 1001-006  
Matrix: Sediment Date Sampled: 10/15/97  
Data Release Authorized: *JMB*  
Reported: 11/26/97 Date Received: 10/16/97

Date Analyzed: 11/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Cycloalkane	7.91	SVOA	300 J N
2. ---	Unknown	8.97	SVOA	790 J N
3. ---	Unknown	10.74	SVOA	250 J N
4. 90-12-0	Naphthalene,_1-methyl_	13.11	SVOA	500 J N
5. ---	Unknown_Aromatic	14.02	SVOA	280 J N
6. ---	Naphthalene,_Dimethyl_Iso	14.13	SVOA	350 J N
7. ---	Naphthalene,_Dimethyl_Iso	14.31	SVOA	300 J N
8. ---	Unknown	14.36	SVOA	260 J N
9. ---	Unknown	15.44	SVOA	340 J N
10. ---	Naphthalene,_Trimethyl_Is	15.66	SVOA	260 J N
11. ---	Unknown_C15.H12_PNA	18.99	SVOA	560 J N
12. ---	Unknown_Organic_Acid	19.11	SVOA	330 J N
13. ---	Unknown_Aromatic	19.22	SVOA	520 J N
14. ---	Unknown	19.68	SVOA	550 J N
15. ---	Unknown_PNA	21.52	SVOA	1,800 J N
16. ---	Unknown	25.09	SVOA	580 J N
17. ---	Unknown	27.48	SVOA	640 J N
18. ---	Unknown	28.82	SVOA	1,100 J N
19. ---	Unknown	28.94	SVOA	1,800 J N
20. ---	Unknown	29.36	SVOA	800 J N

FORM-1-B

00693

*JMB*  
11/27/98 1123



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175J

LIMS ID: 97-19483

Matrix: Sediment

Data Release Authorized: *AMB*

Reported: 11/26/97

Sample No: 97424910 WR-SD-SD017-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 28.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.7%

pH: 7.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	35 U
111-44-4	Bis-(2-Chloroethyl) Ether	69 U
95-57-8	2-Chlorophenol	35 U
541-73-1	1,3-Dichlorobenzene	35 U
106-46-7	1,4-Dichlorobenzene	35 U
100-51-6	Benzyl Alcohol	35 U
95-50-1	1,2-Dichlorobenzene	35 U
95-48-7	2-Methylphenol	35 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	35 U
106-44-5	4-Methylphenol	280
621-64-7	N-Nitroso-Di-N-Propylamine	69 U
67-72-1	Hexachloroethane	35 U
98-95-3	Nitrobenzene	35 U
78-59-1	Isophorone	35 U
88-75-5	2-Nitrophenol	170 U
105-67-9	2,4-Dimethylphenol	35 U
65-85-0	Benzoic Acid	350 U
111-91-1	bis(2-Chloroethoxy) Methane	35 U
120-83-2	2,4-Dichlorophenol	100 U
120-82-1	1,2,4-Trichlorobenzene	35 U
91-20-3	Naphthalene	1,500
106-47-8	4-Chloroaniline	100 U
87-68-3	Hexachlorobutadiene	35 U
59-50-7	4-Chloro-3-methylphenol	69 U
91-57-6	2-Methylnaphthalene	730
77-47-4	Hexachlorocyclopentadiene	170 U
88-06-2	2,4,6-Trichlorophenol	170 U
95-95-4	2,4,5-Trichlorophenol	170 U
91-58-7	2-Chloronaphthalene	35 U
88-74-4	2-Nitroaniline	170 U
131-11-3	Dimethylphthalate	35 U
208-96-8	Acenaphthylene	220
99-09-2	3-Nitroaniline	210 U
83-32-9	Acenaphthene	2,500
51-28-5	2,4-Dinitrophenol	350 U
100-02-7	4-Nitrophenol	170 U
132-64-9	Dibenzofuran	220
606-20-2	2,6-Dinitrotoluene	170 U

FORM-1

00694

1147

AMB 1-1a



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET

PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175J

LIMS ID: 97-19483

Matrix: Sediment

Data Release Authorized: *ans*

Reported: 11/26/97

Sample No: 97424910

WR- SD- SD017- 0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 28.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:1

Percent Moisture: 42.7%

pH: 7.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	170 U
84-66-2	Diethylphthalate	35 U
7005-72-3	4-Chlorophenyl-phenylether	35 U
86-73-7	Fluorene	1,700
100-01-6	4-Nitroaniline	170 U <i>J</i>
534-52-1	4,6-Dinitro-2-Methylphenol	350 U <i>J</i>
86-30-6	N-Nitrosodiphenylamine	35 U <i>J</i>
101-55-3	4-Bromophenyl-phenylether	35 U
118-74-1	Hexachlorobenzene	35 U
87-86-5	Pentachlorophenol	170 U <i>J</i>
85-01-8	Phenanthrene	10,000 <del>E</del> 16000 D
86-74-8	Carbazole	310 <i>J</i>
120-12-7	Anthracene	1,800
84-74-2	Di-n-Butylphthalate	35 U
206-44-0	Fluoranthene	8,500 <del>E</del> 11000 D
129-00-0	Pyrene	11,000 <del>E</del> 15000 D
85-68-7	Butylbenzylphthalate	35 U
91-94-1	3,3'-Dichlorobenzidine	170 U
56-55-3	Benz(a)anthracene	3,000 <del>E</del> 2400 D
117-81-7	bis(2-Ethylhexyl)phthalate	120
218-01-9	Chrysene	3,700 <del>E</del> 3300 D
117-84-0	Di-n-Octyl phthalate	35 U
205-99-2	Benzo(b)fluoranthene	2,900 <del>E</del> 1800 D
207-08-9	Benzo(k)fluoranthene	2,100
50-32-8	Benzo(a)pyrene	3,900 <del>E</del> 3500 D
193-39-5	Indeno(1,2,3-cd)pyrene	2,500
53-70-3	Dibenz(a,h)anthracene	680
191-24-2	Benzo(g,h,i)perylene	3,400 <del>E</del> 3300 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	68.2%	d5-Phenol	74.2%
2-Fluorobiphenyl	77.2%	2-Fluorophenol	74.3%
d14-p-Terphenyl	95.1%	2,4,6-Tribromophenol	90.4%
d4-1,2-Dichlorobenzene	65.6%	d4-2-Chlorophenol	71.1%

FORM-1

00695

*JMB 1148*  
*1/27/98*



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424910

WR-SD-SD017-0000A

Lab Sample ID: U175J  
LIMS ID: 97-19483  
Matrix: Sediment

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *MH*

Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.11	SVOA	680 JN
2. --	Naphthalene,_Dimethyl_Iso	13.16	SVOA	770 JN
3. --	Naphthalene,_Dimethyl_Iso	13.33	SVOA	1,100 J N
4. --	Naphthalene,_Dimethyl_Iso	13.55	SVOA	1,100 J N
5. --	Naphthalene,_Trimethyl_Is	14.49	SVOA	460 J N
6. --	Naphthalene,_Trimethyl_Is	14.70	SVOA	590 J N
7. --	Naphthalene,_Trimethyl_Is	14.84	SVOA	680 J N
8. --	Unknown_____	16.32	SVOA	430 J N
9. 132-65-0	Dibenzothiophene_____	16.76	SVOA	1,000 J N
10. --	Unknown_C15.H12_PNA_____	18.00	SVOA	660 J N
11. --	Unknown_C15.H12_PNA_____	18.05	SVOA	680 J N
12. --	Unknown_Aromatic_____	18.23	SVOA	1,600 J N
13. --	Unknown_____	18.44	SVOA	660 J N
14. --	Unknown_C16.H12_PNA_____	18.60	SVOA	700 J N
15. --	Unknown_____	18.68	SVOA	580 J N
16. --	Unknown_C16.H14_PNA_____	19.14	SVOA	600 J N
17. --	Unknown_C18.H18_PNA_____	20.59	SVOA	3,000 J N
18. --	Unknown_PNA_____	21.91	SVOA	600 J N
19. --	Unknown_C20.H12_PNA_____	24.82	SVOA	560 J N
20. --	Unknown_C22.H12_PNA_____	27.38	SVOA	420 J N

FORM-1-B

00696

JMB 1176  
11/27/98



**ANALYTICAL  
RESOURCES  
INCORPORATED**

**ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS**

Page 1 of 2

Lab Sample ID: U175J

LIMS ID: 97-19483

Matrix: Sediment

Data Release Authorized: *BND*

Reported: 11/26/97

Sample No. 97424910  
DILUTION

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 28.8 g-dry-wt  
Final Extract Volume: 1.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 42.7%  
pH: 7.9

CAS Number	Analyte	ug/kg
108-95-2	Phenol	350 U
111-44-4	Bis-(2-Chloroethyl) Ether	690 U
95-57-8	2-Chlorophenol	350 U
541-73-1	1,3-Dichlorobenzene	350 U
106-46-7	1,4-Dichlorobenzene	350 U
100-51-6	Benzyl Alcohol	350 U
95-50-1	1,2-Dichlorobenzene	350 U
95-48-7	2-Methylphenol	350 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	350 U
106-44-5	4-Methylphenol	350 U
621-64-7	N-Nitroso-Di-N-Propylamine	690 U
67-72-1	Hexachloroethane	350 U
98-95-3	Nitrobenzene	350 U
78-59-1	Isophorone	350 U
88-75-5	2-Nitrophenol	1,700 U
105-67-9	2,4-Dimethylphenol	350 U
65-85-0	Benzoic Acid	3,500 U
111-91-1	bis(2-Chloroethoxy) Methane	350 U
120-83-2	2,4-Dichlorophenol	1,000 U
120-82-1	1,2,4-Trichlorobenzene	350 U
91-20-3	Naphthalene	1,200
106-47-8	4-Chloroaniline	1,000 U
87-68-3	Hexachlorobutadiene	350 U
59-50-7	4-Chloro-3-methylphenol	690 U
91-57-6	2-Methylnaphthalene	510
77-47-4	Hexachlorocyclopentadiene	1,700 U
88-06-2	2,4,6-Trichlorophenol	1,700 U
95-95-4	2,4,5-Trichlorophenol	1,700 U
91-58-7	2-Chloronaphthalene	350 U
88-74-4	2-Nitroaniline	1,700 U
131-11-3	Dimethylphthalate	350 U
208-96-8	Acenaphthylene	350 U
99-09-2	3-Nitroaniline	2,100 U
83-32-9	Acenaphthene	2,400
51-28-5	2,4-Dinitrophenol	3,500 U J
100-02-7	4-Nitrophenol	1,700 U
132-64-9	Dibenzofuran	350 U
606-20-2	2,6-Dinitrotoluene	1,700 U

FORM-1

00697

1200

JMB 12/198

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175J

LIMS ID: 97-19483

Matrix: Sediment

Data Release Authorized: *ENB*

Reported: 11/26/97

Sample No. 97424910  
DILUTION

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 28.8 g-dry-wt

Final Extract Volume: 1.0 mL

Dilution Factor: 1:10

Percent Moisture: 42.7%

pH: 7.9

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	1,700 U
84-66-2	Diethylphthalate	350 U
7005-72-3	4-Chlorophenyl-phenylether	350 U
86-73-7	Fluorene	1,200
100-01-6	4-Nitroaniline	1,700 U
534-52-1	4,6-Dinitro-2-Methylphenol	3,500 U
86-30-6	N-Nitrosodiphenylamine	350 U
101-55-3	4-Bromophenyl-phenylether	350 U
118-74-1	Hexachlorobenzene	350 U
87-86-5	Pentachlorophenol	1,700 U
85-01-8	Phenanthrene	16,000
86-74-8	Carbazole	350 U
120-12-7	Anthracene	1,500
84-74-2	Di-n-Butylphthalate	350 U
206-44-0	Fluoranthene	11,000
129-00-0	Pyrene	15,000
85-68-7	Butylbenzylphthalate	350 U
91-94-1	3,3'-Dichlorobenzidine	1,700 U
56-55-3	Benzo(a)anthracene	2,400
117-81-7	bis(2-Ethylhexyl)phthalate	350 U
218-01-9	Chrysene	3,300
117-84-0	Di-n-Octyl phthalate	350 U
205-99-2	Benzo(b)fluoranthene	1,800
207-08-9	Benzo(k)fluoranthene	2,400
50-32-8	Benzo(a)pyrene	3,500
193-39-5	Indeno(1,2,3-cd)pyrene	2,300
53-70-3	Dibenz(a,h)anthracene	480
191-24-2	Benzo(g,h,i)perylene	3,300

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	59.6%	d5-Phenol	61.3%
2-Fluorobiphenyl	60.4%	2-Fluorophenol	64.8%
d14-p-Terphenyl	68.4%	2,4,6-Tribromophenol	71.5%
d4-1,2-Dichlorobenzene	54.4%	d4-2-Chlorophenol	58.4%

FORM-1  
00698

1201

JMB  
11-1998



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: U175J  
LIMS ID: 97-19483  
Matrix: Sediment

Sample No: 97424910  
DILUTION  
QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *AMB*  
Reported: 11/26/97

Date Analyzed: 11/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Hydrocarbon	12.36	SVOA	820 JN
2. 90-12-0	Naphthalene,_1-methyl_	13.10	SVOA	860 JN
3. ---	Unknown_Hydrocarbon	13.57	SVOA	1,100 JN
4. ---	Naphthalene,_Dimethyl_Iso	14.14	SVOA	1,000 JN
5. ---	Naphthalene,_Dimethyl_Iso	14.32	SVOA	1,800 JN
6. ---	Unknown_Hydrocarbon	14.49	SVOA	1,000 JN
7. ---	Unknown_Aromatic	15.43	SVOA	1,000 JN
8. ---	Naphthalene,_Trimethyl_Is	15.66	SVOA	870 JN
9. ---	Naphthalene,_Trimethyl_Is	15.87	SVOA	1,100 JN
10. ---	Unknown_Hydrocarbon	16.35	SVOA	1,600 JN
11. 132-65-0	Dibenzothiophene	17.75	SVOA	1,400 JN
12. ---	Unknown_PNA	18.62	SVOA	770 JN
13. ---	Unknown_C15.H12_PNA	19.04	SVOA	840 JN
14. ---	Unknown_Aromatic	19.23	SVOA	1,500 JN
15. ---	Unknown	19.45	SVOA	830 JN
16. ---	Unknown	20.19	SVOA	870 JN
17. ---	Unknown_PNA	21.51	SVOA	6,400 JN
18. ---	Unknown_PNA	22.89	SVOA	2,400 JN
19. ---	Unknown_C20.H12_PNA	25.79	SVOA	1,900 JN
20. ---	Unknown	28.94	SVOA	1,600 JN

FORM-1-B

00699

JMB  
1/27/98 122

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175L

LIMS ID: 97-19485

Matrix: Sediment

Data Release Authorized: *AMH*

Reported: 11/26/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424912

WR-SD- SD035-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 15.6 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 7.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	130 U
111-44-4	Bis-(2-Chloroethyl) Ether	260 U
95-57-8	2-Chlorophenol	130 U
541-73-1	1,3-Dichlorobenzene	130 U
106-46-7	1,4-Dichlorobenzene	130 U
100-51-6	Benzyl Alcohol	130 U
95-50-1	1,2-Dichlorobenzene	130 U
95-48-7	2-Methylphenol	130 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	130 U
106-44-5	4-Methylphenol	160
621-64-7	N-Nitroso-Di-N-Propylamine	260 U
67-72-1	Hexachloroethane	130 U
98-95-3	Nitrobenzene	130 U
78-59-1	Isophorone	130 U
88-75-5	2-Nitrophenol	640 U
105-67-9	2,4-Dimethylphenol	130 U
65-85-0	Benzoic Acid	1,300 U
111-91-1	bis(2-Chloroethoxy) Methane	130 U
120-83-2	2,4-Dichlorophenol	390 U
120-82-1	1,2,4-Trichlorobenzene	130 U
91-20-3	Naphthalene	1,900
106-47-8	4-Chloroaniline	390 U
87-68-3	Hexachlorobutadiene	130 U
59-50-7	4-Chloro-3-methylphenol	260 U
91-57-6	2-Methylnaphthalene	860
77-47-4	Hexachlorocyclopentadiene	640 U
88-06-2	2,4,6-Trichlorophenol	640 U
95-95-4	2,4,5-Trichlorophenol	640 U
91-58-7	2-Chloronaphthalene	130 U
88-74-4	2-Nitroaniline	640 U
131-11-3	Dimethylphthalate	130 U
208-96-8	Acenaphthylene	490
99-09-2	3-Nitroaniline	770 U
83-32-9	Acenaphthene	5,400
51-28-5	2,4-Dinitrophenol	1,300 U
100-02-7	4-Nitrophenol	640 U
132-64-9	Dibenzofuran	470
606-20-2	2,6-Dinitrotoluene	640 U

FORM-1

00700

*JMB* 1248  
*11/27/98*

ORGANICS ANALYSIS DATA SHEET  
PSDDA Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175L

LIMS ID: 97-19485

Matrix: Sediment

Data Release Authorized: *DKA*

Reported: 11/26/97



ANALYTICAL  
RESOURCES  
INCORPORATED

Sample No: 97424912

WR-SD-SD035-0000A

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

Instrument: ntl

GPC Cleanup: YES

Sample Amount: 15.6 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 7.7

CAS Number	Analyte	ug/kg
121-14-2	2,4-Dinitrotoluene	640 U
84-66-2	Diethylphthalate	130 U
7005-72-3	4-Chlorophenyl-phenylether	130 U
86-73-7	Fluorene	4,600 J
100-01-6	4-Nitroaniline	640 U J
534-52-1	4,6-Dinitro-2-Methylphenol	1,300 U J
86-30-6	N-Nitrosodiphenylamine	130 U J
101-55-3	4-Bromophenyl-phenylether	130 U
118-74-1	Hexachlorobenzene	130 U
87-86-5	Pentachlorophenol	640 U J R
85-01-8	Phenanthrene	30,000 E 42000 D
86-74-8	Carbazole	280 J
120-12-7	Anthracene	7,800
84-74-2	Di-n-Butylphthalate	130 U
206-44-0	Fluoranthene	28,000 E 34000 D
129-00-0	Pyrene	33,000 E 48000 D
85-68-7	Butylbenzylphthalate	130 U
91-94-1	3,3'-Dichlorobenzidine	640 U
56-55-3	Benzo(a)anthracene	9,900
117-81-7	bis(2-Ethylhexyl)phthalate	130 U
218-01-9	Chrysene	12,000 E 11000 D
117-84-0	Di-n-Octyl phthalate	130 U
205-99-2	Benzo(b)fluoranthene	12,000 E 7600 D
207-08-9	Benzo(k)fluoranthene	5,400
50-32-8	Benzo(a)pyrene	14,000 E 13000 D
193-39-5	Indeno(1,2,3-cd)pyrene	8,700
53-70-3	Dibenz(a,h)anthracene	2,100
191-24-2	Benzo(g,h,i)perylene	12,000 E 13000 D

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	61.4%	d5-Phenol	68.3%
2-Fluorobiphenyl	72.8%	2-Fluorophenol	71.4%
d14-p-Terphenyl	87.8%	2,4,6-Tribromophenol	87.0%
d4-1,2-Dichlorobenzene	60.8%	d4-2-Chlorophenol	68.0%

FORM-1

00701

1249

JMB  
11/27/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Sample No: 97424912 WR-SD- SD035-0000A  
Lab Sample ID: U175L QC Report No: U175-REGL, LLC  
LIMS ID: 97-19485 Project: 1001-006  
Matrix: Sediment  
Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *JMB*  
Reported: 11/26/97

Date Analyzed: 11/17/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. 90-12-0	Naphthalene,_1-methyl_	12.11	SVOA	1,700 JN
2. --	Naphthalene,_Dimethyl_Iso	13.15	SVOA	1,900 JN
3. --	Naphthalene,_Dimethyl_Iso	13.32	SVOA	3,000 JN
4. --	Naphthalene,_Trimethyl_Is	14.84	SVOA	1,600 JN
5. 132-65-0	Dibenzothiophene_____	16.74	SVOA	2,500 JN
6. --	Unknown_C16.H12_PNA_____	17.61	SVOA	2,400 JN
7. --	Unknown_C15.H12_PNA_____	17.97	SVOA	2,100 JN
8. --	Unknown_C15.H12_PNA_____	18.04	SVOA	2,400 JN
9. --	Unknown_Aromatic_____	18.21	SVOA	5,400 JN
10. --	Unknown_C16.H12_PNA_____	18.58	SVOA	2,600 JN
11. --	Unknown_C16.H14_PNA_____	19.12	SVOA	1,800 JN
12. --	Unknown_C16.H10_PNA_____	19.59	SVOA	4,200 JN
13. --	Unknown_Aromatic_____	20.52	SVOA	13,000 JN
14. --	Unknown_C17.H12_PNA_____	20.67	SVOA	4,100 JN
15. --	Unknown_PNA_____	21.88	SVOA	6,600 JN
16. --	Unknown_PNA_____	22.51	SVOA	3,400 JN
17. --	Unknown_____	23.37	SVOA	5,200 JN
18. --	Unknown_C20.H12_PNA_____	24.49	SVOA	3,600 JN
19. --	Unknown_C20.H12_PNA_____	24.79	SVOA	7,200 JN
20. --	Unknown_C22.H12_PNA_____	27.39	SVOA	4,400 JN

FORM-1-B

00702

*JMB* 1276  
11/27/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 1 of 2

Lab Sample ID: U175L

LIMS ID: 97-19485

Matrix: Sediment

Data Release Authorized: *AMF*

Reported: 11/26/97



Sample No. 97424912

DILUTION

ANALYTICAL  
RESOURCES  
INCORPORATED

QC Report No: U175-REGL, LLC  
Project: 1001-006

Date Sampled: 10/15/97  
Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 15.6 g-dry-wt  
Final Extract Volume: 2.0 mL  
Dilution Factor: 1:10  
Percent Moisture: 48.6%  
pH: 7.7

CAS Number	Analyte	ug/kg
108-95-2	Phenol	1,300 U
111-44-4	Bis-(2-Chloroethyl) Ether	2,600 U
95-57-8	2-Chlorophenol	1,300 U
541-73-1	1,3-Dichlorobenzene	1,300 U
106-46-7	1,4-Dichlorobenzene	1,300 U
100-51-6	Benzyl Alcohol	1,300 U
95-50-1	1,2-Dichlorobenzene	1,300 U
95-48-7	2-Methylphenol	1,300 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1,300 U
106-44-5	4-Methylphenol	1,300 U
621-64-7	N-Nitroso-Di-N-Propylamine	2,600 U
67-72-1	Hexachloroethane	1,300 U
98-95-3	Nitrobenzene	1,300 U
78-59-1	Isophorone	1,300 U
88-75-5	2-Nitrophenol	6,400 U
105-67-9	2,4-Dimethylphenol	1,300 U
65-85-0	Benzoic Acid	13,000 U
111-91-1	bis(2-Chloroethoxy) Methane	1,300 U
120-83-2	2,4-Dichlorophenol	3,900 U
120-82-1	1,2,4-Trichlorobenzene	1,300 U
91-20-3	Naphthalene	1,400
106-47-8	4-Chloroaniline	3,900 U
87-68-3	Hexachlorobutadiene	1,300 U
59-50-7	4-Chloro-3-methylphenol	2,600 U
91-57-6	2-Methylnaphthalene	1,300 U
77-47-4	Hexachlorocyclopentadiene	6,400 U
88-06-2	2,4,6-Trichlorophenol	6,400 U
95-95-4	2,4,5-Trichlorophenol	6,400 U
91-58-7	2-Chloronaphthalene	1,300 U
88-74-4	2-Nitroaniline	6,400 U
131-11-3	Dimethylphthalate	1,300 U
208-96-8	Acenaphthylene	1,300 U
99-09-2	3-Nitroaniline	7,700 U
83-32-9	Acenaphthene	4,200
51-28-5	2,4-Dinitrophenol	13,000 U <i>J</i>
100-02-7	4-Nitrophenol	6,400 U
132-64-9	Dibenzofuran	1,300 U
606-20-2	2,6-Dinitrotoluene	6,400 U

FORM-1

00703

1300

*JMB*  
1/27/98

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by GC/MS

Page 2 of 2

Lab Sample ID: U175L

LIMS ID: 97-19485

Matrix: Sediment

Data Release Authorized: *OK*

Reported: 11/26/97



Sample No. 97424912  
DILUTION

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/21/97

Instrument: nt1

GPC Cleanup: YES

Sample Amount: 15.6 g-dry-wt

Final Extract Volume: 2.0 mL

Dilution Factor: 1:10

Percent Moisture: 48.6%

pH: 7.7

CAS Number	Analyte	ug/Kg
121-14-2	2,4-Dinitrotoluene	6,400 U
84-66-2	Diethylphthalate	1,300 U
7005-72-3	4-Chlorophenyl-phenylether	1,300 U
86-73-7	Fluorene	3,000
100-01-6	4-Nitroaniline	6,400 U
534-52-1	4,6-Dinitro-2-Methylphenol	13,000 U
86-30-6	N-Nitrosodiphenylamine	1,300 U
101-55-3	4-Bromophenyl-phenylether	1,300 U
118-74-1	Hexachlorobenzene	1,300 U
87-86-5	Pentachlorophenol	6,400 U
85-01-8	Phenanthrene	42,000
86-74-8	Carbazole	1,300 U
120-12-7	Anthracene	6,400
84-74-2	Di-n-Butylphthalate	1,300 U
206-44-0	Fluoranthene	34,000
129-00-0	Pyrene	48,000
85-68-7	Butylbenzylphthalate	1,300 U
91-94-1	3,3'-Dichlorobenzidine	6,400 U
56-55-3	Benzo(a)anthracene	8,400
117-81-7	bis(2-Ethylhexyl)phthalate	1,300 U
218-01-9	Chrysene	11,000
117-84-0	Di-n-Octyl phthalate	1,300 U
205-99-2	Benzo(b)fluoranthene	7,600
207-08-9	Benzo(k)fluoranthene	6,800
50-32-8	Benzo(a)pyrene	13,000
193-39-5	Indeno(1,2,3-cd)pyrene	8,500
53-70-3	Dibenz(a,h)anthracene	1,700
191-24-2	Benzo(g,h,i)perylene	13,000

Semivolatiles Surrogate Recovery

d5-Nitrobenzene	56.4%	d5-Phenol	62.4%
2-Fluorobiphenyl	59.2%	2-Fluorophenol	61.1%
d14-p-Terphenyl	65.6%	2,4,6-Tribromophenol	62.1%
d4-1,2-Dichlorobenzene	51.6%	d4-2-Chlorophenol	57.1%

FORM-1

00704

JMB 1301  
11/27/98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Tentatively Identified Compounds

Lab Sample ID: U175L      Sample No: 97424912  
LIMS ID: 97-19485      QC Report No: U175-REGL, LLC  
Matrix: Sediment      Project: 1001-006  
Date Sampled: 10/15/97  
Date Received: 10/16/97

Data Release Authorized: *JMB*  
Reported: 11/26/97

Date Analyzed: 11/21/97

CAS Number	Tentative Identification	RT	Fraction	ug/kg
1. ---	Unknown_Hydrocarbon	13.57	SVOA	3,200 J N
2. ---	Naphthalene,_Dimethyl_Iso	14.14	SVOA	2,800 J N
3. ---	Naphthalene,_Dimethyl_Iso	14.31	SVOA	5,300 J N
4. ---	Unknown_Hydrocarbon	14.49	SVOA	3,200 J N
5. ---	Naphthalene,_Trimethyl_Is	15.43	SVOA	2,800 J N
6. ---	Unknown_Hydrocarbon	16.35	SVOA	4,500 J N
7. ---	Unknown_Hydrocarbon	16.89	SVOA	4,700 J N
8. 132-65-0	Dibenzothiophene	17.76	SVOA	3,500 J N
9. ---	Unknown_Hydrocarbon	17.83	SVOA	3,200 J N
10. ---	Unknown_Aromatic	19.23	SVOA	4,600 J N
11. ---	Unknown_Aromatic	21.51	SVOA	5,500 J N
12. ---	Unknown_C20.H12_PNA	25.79	SVOA	2,700 J N
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

FORM-1-B

00705

*JMB* 1323  
12-21-98



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424900

WR-SD-SD001-0000A

Lab Sample ID: U175A

LIMS ID: 97-19474

Matrix: Sediment

Data Release Authorized: *Alynn*

Reported: 11/24/97

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 51.9 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 45.5%

pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 U J
319-85-7	beta-BHC	0.96 U J
319-86-8	delta-BHC	0.96 U J
58-89-9	gamma-BHC (Lindane)	0.96 U J
76-44-8	Heptachlor	0.96 U J
309-00-2	Aldrin	0.96 U J
1024-57-3	Heptachlor Epoxide	0.96 U J
959-98-8	Endosulfan I	0.96 U J
60-57-1	Dieldrin	1.9 U J
72-55-9	4,4'-DDE	9.4 U J
72-20-8	Endrin	1.9 U J
33213-65-9	Endosulfan II	1.9 U J
72-54-8	4,4'-DDD	36 U J
1031-07-8	Endosulfan Sulfate	1.9 U J
50-29-3	4,4'-DDT	43 E 62 D & J
72-43-5	Methoxychlor	9.6 U J
53494-70-5	Endrin Ketone	1.9 U J
7421-93-4	Endrin Aldehyde	1.9 U J
57-74-9	gamma Chlordane	0.96 U J
5103-71-9	alpha Chlordane	0.96 U J
8001-35-2	Toxaphene	96 U J
12674-11-2	Aroclor 1016	19 U J
53469-21-9	Aroclor 1242	19 U J
12672-29-6	Aroclor 1248	19 U J
11097-69-1	Aroclor 1254	19 U J
11096-82-5	Aroclor 1260	19 U J
11104-28-2	Aroclor 1221	39 U J
11141-16-5	Aroclor 1232	19 U J

JMB

Pesticide Surrogate Recovery

Decachlorobiphenyl 32.8%  
Tetrachloromethylene 20.5%

FORM-1  
00706

JMB  
11/27/98 027



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424900  
DILUTION

Lab Sample ID: U175ADL  
LIMS ID: 97-19474  
Matrix: Sediment  
Data Release Authorized: *Hugh*  
Reported: 11/24/97

QC Report No: U175-REGL, LLC  
Project: 1001-006  
Date Sampled: 10/14/97  
Date Received: 10/16/97

Date extracted: 10/27/97  
Date analyzed: 11/20/97  
GPC Cleanup: YES  
Florisil: YES  
Sulfur Cleanup: YES

Sample Amount: 51.9 g-dry-wt  
Final Extract Volume: 10 mL  
Dilution Factor: 1:10  
Percent Moisture: 45.5%  
pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	9.6 U
319-85-7	beta-BHC	9.6 U
319-86-8	delta-BHC	9.6 U
58-89-9	gamma-BHC (Lindane)	9.6 U
76-44-8	Heptachlor	9.6 U
309-00-2	Aldrin	9.6 U
1024-57-3	Heptachlor Epoxide	9.6 U
959-98-8	Endosulfan I	9.6 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	48
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	62 J
72-43-5	Methoxychlor	96 U
53494-70-5	Endrin Ketone	19 U
7421-93-4	Endrin Aldehyde	19 U
57-74-9	gamma Chlordane	9.6 U
5103-71-9	alpha Chlordane	9.6 U
8001-35-2	Toxaphene	960 U
12674-11-2	Aroclor 1016	190 U
53469-21-9	Aroclor 1242	190 U
12672-29-6	Aroclor 1248	190 U
11097-69-1	Aroclor 1254	190 U
11096-82-5	Aroclor 1260	190 U
11104-28-2	Aroclor 1221	390 U
11141-16-5	Aroclor 1232	190 U

Pesticide Surrogate Recovery

Decachlorobiphenyl 70.0%  
Tetrachlorometaxylene 67.5%

FORM-1

00707

JMB  
1/27/98 035



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424902

WR-SD- SD074- 0000A

Lab Sample ID: U175C

LIMS ID: 97-19476

Matrix: Sediment

Data Release Authorized: *N/A*

Reported: 11/24/97

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 51.0 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 49.1%

pH: 7.5

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.98 uJ
319-85-7	beta-BHC	0.98 uJ
319-86-8	delta-BHC	0.98 uJ
58-89-9	gamma-BHC (Lindane)	0.98 uJ
76-44-8	Heptachlor	0.98 uJ
309-00-2	Aldrin	0.98 uJ
1024-57-3	Heptachlor Epoxide	0.98 uJ
959-98-8	Endosulfan I	0.98 uJ
60-57-1	Dieldrin	2.0 uJ
72-55-9	4,4'-DDE	2.8 uJ
72-20-8	Endrin	2.0 uJ
33213-65-9	Endosulfan II	2.0 uJ
72-54-8	4,4'-DDD	4.8 uJ
1031-07-8	Endosulfan Sulfate	2.0 uJ
50-29-3	4,4'-DDT	15 uJ
72-43-5	Methoxychlor	9.8 uJ
53494-70-5	Endrin Ketone	2.0 uJ
7421-93-4	Endrin Aldehyde	2.0 uJ
57-74-9	gamma Chlordane	0.98 uJ
5103-71-9	alpha Chlordane	0.98 uJ
8001-35-2	Toxaphene	98 uJ
12674-11-2	Aroclor 1016	20 uJ
53469-21-9	Aroclor 1242	20 uJ
12672-29-6	Aroclor 1248	20 uJ
11097-69-1	Aroclor 1254	20 uJ
11096-82-5	Aroclor 1260	20 uJ
11104-28-2	Aroclor 1221	39 uJ
11141-16-5	Aroclor 1232	20 uJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 61.0%

Tetrachloromethylene 19.0%

FORM-1

00708

JMB  
1/27/98

04:



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424904

WR-SD- SD 441-0000A

Lab Sample ID: U175E

QC Report No: U175-REGL, LLC

LIMS ID: 97-19478

Project: 1001-006

Matrix: Sediment

Data Release Authorized:

Date Sampled: 10/14/97

Reported: 12/05/97

Date Received: 10/16/97

Date extracted: 10/27/97

Sample Amount: 51.8 g-dry-wt

Date analyzed: 11/17/97

Final Extract Volume: 10 mL

GPC Cleanup: YES

Dilution Factor: 1:1

Florisil: YES

Percent Moisture: 50.8%

Sulfur Cleanup: YES

pH: 7.2

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 uJ
319-85-7	beta-BHC	0.96 uJ
319-86-8	delta-BHC	0.96 uJ
58-89-9	gamma-BHC (Lindane)	0.96 uJ
76-44-8	Heptachlor	0.96 uJ
309-00-2	Aldrin	0.96 uJ
1024-57-3	Heptachlor Epoxide	0.96 uJ
959-98-8	Endosulfan I	0.96 uJ
60-57-1	Dieldrin	1.9 uJ
72-55-9	4,4'-DDE	2.6 X uJ
72-20-8	Endrin	1.9 uJ
33213-65-9	Endosulfan II	1.9 uJ
72-54-8	4,4'-DDD	3.3 J
1031-07-8	Endosulfan Sulfate	1.9 uJ
50-29-3	4,4'-DDT	3.1 X uJ
72-43-5	Methoxychlor	9.6 uJ
53494-70-5	Endrin Ketone	3.9 X uJ
7421-93-4	Endrin Aldehyde	1.9 uJ
57-74-9	gamma Chlordane	1.5 X uJ
5103-71-9	alpha Chlordane	0.96 uJ
8001-35-2	Toxaphene	96 uJ
12674-11-2	Aroclor 1016	19 uJ
53469-21-9	Aroclor 1242	19 uJ
12672-29-6	Aroclor 1248	19 uJ
11097-69-1	Aroclor 1254	59 J
11096-82-5	Aroclor 1260	81 J
11104-28-2	Aroclor 1221	39 uJ
11141-16-5	Aroclor 1232	19 uJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 35.5%  
Tetrachloromethylene 21.5%

FORM-1  
00709

JMB  
1/27/98 050



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424906

WR-SD- SD138-0000A

Lab Sample ID: U175G

LIMS ID: 97-19480

Matrix: Sediment

Data Release Authorized: *Alysha*

Reported: 11/24/97

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/14/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 52.2 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 47.9%

pH: 7.9

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.96 UJ
319-85-7	beta-BHC	0.96 UJ
319-86-8	delta-BHC	0.96 UJ
58-89-9	gamma-BHC (Lindane)	0.96 UJ
76-44-8	Heptachlor	0.96 UJ
309-00-2	Aldrin	0.96 UJ
1024-57-3	Heptachlor Epoxide	0.96 UJ
959-98-8	Endosulfan I	0.96 UJ
60-57-1	Dieldrin	1.9 UJ
72-55-9	4,4'-DDE	1.9 UJ
72-20-8	Endrin	1.9 UJ
33213-65-9	Endosulfan II	1.9 UJ
72-54-8	4,4'-DDD	1.9 UJ
1031-07-8	Endosulfan Sulfate	1.9 UJ
50-29-3	4,4'-DDT	2.7 X UJ
72-43-5	Methoxychlor	9.6 UJ
53494-70-5	Endrin Ketone	7.3 X UJ
7421-93-4	Endrin Aldehyde	3.7 X UJ
57-74-9	gamma Chlordane	1.3 X UJ
5103-71-9	alpha Chlordane	0.96 UJ
8001-35-2	Toxaphene	96 UJ
12674-11-2	Aroclor 1016	19 UJ
53469-21-9	Aroclor 1242	19 UJ
12672-29-6	Aroclor 1248	19 UJ
11097-69-1	Aroclor 1254	40 J
11096-82-5	Aroclor 1260	120 J
11104-28-2	Aroclor 1221	38 UJ
11141-16-5	Aroclor 1232	19 UJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 28.0%

Tetrachlorometaxylene 21.0%

FORM-1  
00710

JMB  
127198  
058



ANALYTICAL  
RESOURCES  
INCORPORATED

ORGANICS ANALYSIS DATA SHEET  
Pesticides/PCB by GC/ECD

Sample No: 97424912

WR- SD- SD035- 0000A

Lab Sample ID: U175L

LIMS ID: 97-19485

Matrix: Sediment

Data Release Authorized: *Alayka*

Reported: 11/24/97

QC Report No: U175-REGL, LLC

Project: 1001-006

Date Sampled: 10/15/97

Date Received: 10/16/97

Date extracted: 10/27/97

Date analyzed: 11/17/97

GPC Cleanup: YES

Florisil: YES

Sulfur Cleanup: YES

Sample Amount: 51.5 g-dry-wt

Final Extract Volume: 10 mL

Dilution Factor: 1:1

Percent Moisture: 48.6%

pH: 7.7

CAS Number	Analyte	ug/kg
319-84-6	alpha-BHC	0.97 uJ
319-85-7	beta-BHC	0.97 uJ
319-86-8	delta-BHC	0.97 uJ
58-89-9	gamma-BHC (Lindane)	0.97 uJ
76-44-8	Heptachlor	0.97 uJ
309-00-2	Aldrin	0.97 uJ
1024-57-3	Heptachlor Epoxide	0.97 uJ
959-98-8	Endosulfan I	0.97 uJ
60-57-1	Dieldrin	1.9 uJ
72-55-9	4,4'-DDE	7.1 X uJ
72-20-8	Endrin	1.9 uJ
33213-65-9	Endosulfan II	1.9 uJ
72-54-8	4,4'-DDD	23 J
1031-07-8	Endosulfan Sulfate	1.9 uJ
50-29-3	4,4'-DDT	18 J
72-43-5	Methoxychlor	23 X uJ
53494-70-5	Endrin Ketone	1.9 uJ
7421-93-4	Endrin Aldehyde	1.9 uJ
57-74-9	gamma Chlordane	0.97 uJ
5103-71-9	alpha Chlordane	0.97 uJ
8001-35-2	Toxaphene	97 uJ
12674-11-2	Aroclor 1016	19 uJ
53469-21-9	Aroclor 1242	19 uJ
12672-29-6	Aroclor 1248	19 uJ
11097-69-1	Aroclor 1254	78 X uJ
11096-82-5	Aroclor 1260	78 X uJ
11104-28-2	Aroclor 1221	39 uJ
11141-16-5	Aroclor 1232	19 uJ

Pesticide Surrogate Recovery

Decachlorobiphenyl 50.0%  
Tetrachlorometaylene 18.5%

FORM-1

00711

JMB  
1/27/98  
066